TOWN PLANNING BOARD

TPB Paper No. 9497
For Consideration by
the Town Planning Board on 20.12.2013

DRAFT TO KWA PENG AND
PAK TAM AU OUTLINE ZONING PLAN NO. S/NE-TKP/C
FURTHER CONSIDERATION OF A NEW PLAN

DRAFT TO KWA PENG AND PAK TAM AU OUTLINE ZONING PLAN NO. S/NE-TKP/C FURTHER CONSIDERATION OF A NEW PLAN

1. Introduction

The purposes of this paper are to:

- (a) report on the results of the consultation with the Tai Po District Council (TPDC) and the Sai Kung North District Rural Committee (SKNRC), and other public views on the draft To Kwa Peng and Pak Tam Au Outline Zoning Plan (OZP) No. S/NE-TKP/B; and
- (b) seek Members' agreement that the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/C, its Notes and Explanatory Statement (ES) (**Annexes I** to **III**) are suitable for public inspection under section 5 of the Town Planning Ordinance (the Ordinance).

2. Background

- On 7.1.2011, the draft To Kwa Peng and Pak Tam Au DPA Plan No. DPA/NE-TKP/1 was exhibited for public inspection under section 5 of the Ordinance. In accordance with section 20(5) of the Ordinance, the DPA Plan is effective for three years until 7.1.2014 unless an extension is obtained from the Chief Executive in Council. On 4.10.2013, the Town Planning Board (the Board) gave preliminary consideration to the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/B (TPB Paper No. 9441) and agreed that the draft OZP was suitable for submission to the TPDC and SKNRC for consultation. An extract of the minutes of the Board's meeting held on 4.10.2013 and TPB Paper No. 9441 are at **Annexes IV** and **V** respectively for Members' reference.
- 2.2 For Members' easy reference, as compared to the approved To Kwa Peng and Pak Tam Au DPA Plan where all the land is designated as "Unspecified Use", about 19.38 ha (77.64%) of the land under the draft OZP (No. S/NE-TKP/B) is allocated to conservation zonings (including "Green Belt" ("GB"), "Conservation Area" ("CA") and "Coastal Protection Area" ("CPA") zones), while about 5.58 ha (22.36%) has been reserved for village development (**Plans 1a and 2a**). Major land use proposals of the draft OZP have been highlighted in the TPB Paper No. 9441 and recapitulated below:

<u>"CA" Zone</u> (16.51 ha and 66.14%)

To Kwa Peng (Plans 1a, 1b and 1c)

The fung shui woodland, the woodland on the eastern side of the To Kwa (a) Peng area and the woodland adjoining the Sai Kung East Country Park along the southern and western boundary of the area mainly consists of relatively undisturbed native woodland adjacent to the Country Park, which is ecologically-linked to the natural habitats therein. A high diversity of flora species (96 species), including the protected Aquilaria sinensis (十沉香) and Pavetta hongkongensis (香港大沙葉), has been recorded. Aquilaria sinensis (十沉香) has also been recorded in the woodland at the knoll northeast of the fung shui woodland. Though most of the species recorded in the subject site are common and widespread, To Kwa Peng has been identified as a butterfly hotspot with over 40% of the local species recorded, including the very rare Choaspes hemixanthus (半黃綠弄蝶), and the rare Zographetus satwa (黃裳 腫脈弄蝶) and Abraximorpha davidii (白弄蝶). Hence, these areas are proposed to be zoned "CA" to protect and retain the existing natural landscape, ecological or topographical features for conservation, educational and research purposes and to separate sensitive natural environment such as Country Park from the adverse effects of development.

Pak Tam Au (Plans 2a, 2b and 2c)

(b) The *fung shui* woodland behind the Pak Tam Au Village with a moderately high diversity of flora species (62 species), including the protected *Pavetta hongkongensis* (香港大沙葉), and the woodland adjoining the Sai Kung East Country Park along the boundary of the whole Pak Tam Au area except the permitted burial ground for indigenous villagers at the southwest, which consist of relatively undisturbed and native woodland, is proposed to be zoned "CA" on nature conservation considerations. The proposed "CA" zone would also serve as a buffer between the village area and the Sai Kung East Country Park.

<u>"CPA" Zone</u> (1.08 ha and 4.33%)

To Kwa Peng (Plans 1a, 1b and 1c)

(c) The natural mudflat along the coastal areas of the To Kwa Peng area supports dense mangrove stands comprising seven species of mangroves, including the uncommon *Heritiera littoralis* (銀葉樹) and *Lumnitzera racemosa* (欖李). Two seagrass species, *Halophila minor* (小喜鹽草) and *H. ovalis* (喜鹽草) have also been recorded at the mudflat. The area is one of the most species-rich sites in Hong Kong with respect to mangrove fauna, with a total of 52 species recorded. Some wetland plants, such as *Kandelia canel* (水筆仔), *Heritiera littoralis* (銀葉樹), *Glochidion zeylanicum* (香港算盤子), etc., are found along the eastern coast of To Kwa Peng and along two sides of the existing footpath.

(d) According to the Landscape Value Mapping of Hong Kong (2005), the To Kwa Peng area is of a high landscape value of rural character with scenic setting. The coastal areas along Ko Tong Hau is proposed to be zoned "CPA" in order to conserve the coastal habitats and provide visual buffer to the scenic coastline.

<u>"GB" Zone</u> (1.79 ha and 7.17%)

To Kwa Peng (Plans 1a, 1b and 1c)

(e) The area to the west of the existing village cluster of To Kwa Peng mainly comprises relatively disturbed, young woodland and shrubby grassland developed from abandoned agricultural land with the natural stream flowing from the south to the semi-enclosed coast of Ko Tong Hau with limited tidal flush in the north where abundant mangroves and backshore vegetation are found. Maintaining a buffer between the natural stream and the village is desirable from nature conservation point of view. Besides, as the natural stream together with the adjoining scrubland and young woodland as well as the estuarine area constitute distinctive landscape resources, there is a need to impose planning control against undesirable village expansion in close proximity to the stream so as to safeguard the integrity of the existing landscape settings. Therefore, it is proposed to zone the area as "GB" serving as a buffer from nature conservation and landscape perspectives.

Pak Tam Au (Plans 2a, 2b and 2c)

(f) To reflect the traditional burial ground at the southwestern vegetated knoll of Pak Tam Au, it is proposed to designate the area as "GB".

"Village Type Development" ("V") Zone (5.58 ha and 22.36%)

Given the natural environment with conservation and landscape value (g) coupled with its inaccessibility due to lack of or limited vehicular access, an incremental approach for designation of "V" zone for Small House development has been adopted with an aim to consolidating Small House development at suitable locations so as to avoid undesirable disturbances to the natural environment and overtaxing the limited infrastructure in the To Kwa Peng and Pak Tam Au area (the Area). Discounting the environmentally sensitive areas, including coastal mangrove and mudflat, natural stream and mature woodland which are zoned "CA", "CPA" and "GB", the residual area for "V" is about 1.94 ha of land (for To Kwa Peng) and about 3.64 ha of land (for Pak Tam Au). The proposed "V" zones mainly cover the existing village clusters and the adjoining schrubland and grassland as well as relatively disturbed, young woodland on abandoned agricultural land.

3. <u>Local Consultation</u>

SKNRC and **TPDC**

- 3.1 The SKNRC and TPDC were consulted on the draft OZP on 16.10.2013 and 13.11.2013 respectively. While the SKNRC expressed appreciation of the designation of "V" zones on the draft OZP to address their concern raised earlier (during the gazettal of the To Kwa Peng and Pak Tam Au DPA and the preparation of the draft OZP), they considered that the size of the "V" zone for To Kwa Peng was inadequate. They have the following proposals:
 - (a) The eastern part of the "CA" zone at To Kwa Peng should be rezoned to "V" in view of the outstanding Small House applications and private land thereat (**Plan 1e**).
 - (b) For Pak Tam Au, the area to the west of the "V" zone should be rezoned from "CA" to "V" to facilitate development of an access road (**Plan 2e**).
- 3.2 Members of the TPDC at its meeting on 13.11.2013 in general supported the views and proposals of the SKNRC above.

Local Villagers

3.3 Subsequently, two specific submissions (one for To Kwa Peng and one for Pak Tam Au) were received from the Indigenous Inhabitant Representative (IIR) of To Kwa Peng (**Annex VI**) and the consultant of Pak Tam Au villagers (**Annex VII**) respectively, which further refine their initial views/proposals raised in the meeting of the SKNRC on 16.10.2013 at paragraph 3.1 above. These two submissions are summarized below:

Submission from the IIR of To Kwa Peng (Annex VI)

- (a) The IIR of To Kwa Peng comments that there is limited trees in the areas zoned "GB". Water flowing through the natural stream is also diminishing. The vegetation within the "CA" zone, particularly at the eastern and southern portions, is neither dense nor of high ecological value. Besides, part of the "CPA" zone at the western coast adjacent to the "V" zone is not densely covered by any trees. Specifically, he puts forth the following proposals (**Plan 1f**):
 - (i) to expand the "V" zone by rezoning these areas from "GB" (Area A), "CA" (Areas B1 and B2) and "CPA" (Area C) to "V" (Plan 1g); and
 - (ii) to extend the "CPA" zone near the pier southward by rezoning an area from "CA" (**Area D**) to "CPA" taking into account the physical features, landscape and visual considerations (**Plan 1g**).

Submission from the consultant of Pak Tam Au villagers (Annex VII)

(b) The villagers of Pak Tam Au are of the view that the zoning proposals as shown on the draft OZP No. S/NE-TKP/B are acceptable except the proposed "CA" zoning for a strip of formed land and the adjoining area to the west of the "V" zone, which was previously used as an alternative access to the area. The consultant indicates that the existing access road to the village is steep, narrow and winding. To cater for the future development of Pak Tam Au, the previous alternative access and the adjoining areas on both sides should be rezoned from "CA" to "V" to facilitate potential in-situ re-provision of this alterative access road. (Plans 2f and 2g).

Environmental concern groups and other public members

- 3.4 Environmental concern groups, namely Kadoorie Farm and Botanic Garden Corporation (KFBG) and Conservancy Association (CA), and other members of the public have also submitted views and proposals on the draft OZP mainly on nature conservation grounds. The KFBG submitted a report, "Ecological and Conservation Importance of Six Sai Kung Country Park Enclaves" on 3.10.2013, which provides up-to-date ecological information of six Country Park Enclaves (CPEs), including the Area (Annex VIII), and further information with detailed zoning proposals for the Area on 22.11.2013 (Annex IX). Subsequently, the CA on 2.12.2013 (Annex XI) and two members of the public on 21.11.2013 (Annex X) submitted similar comments. They are summarized as follows:
 - (a) The "V" zones on the draft OZP are too large and should be confined to the existing village settlement and approved Small House sites.
 - (b) The natural stream and the adjoining woodland at To Kwa Peng should be rezoned from "GB" to "CA" as the riparian area provides habitats for the Sesarmine crab (相手蟹) community and the stream estuary also functions as a fish nursery, and provides migratory paths for diadromous species (迴游性物種) (**Plan 1h**). In addition, as Small House within the "GB" zone is permissible on application to the Board, it cannot provide sufficient protection to the habitats.
 - (c) The western portion of the "V" zone at To Kwa Peng covers secondary woodland and massive tree felling would be involved (**Plan 1h**). It should be rezoned from "V" to "CA". Also, the "V" zone of To Kwa Peng would encourage the "destroy first" approach to reduce ecological value to get favourable development on the OZP as there was large scale land excavation and vegetation clearance work at the site.

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¹ According to the verbal advice of the consultant, the strip of land was formed by the previous land owner(s) of Pak Tam Au as an alternative vehicular access to the area. However, concrete barriers are currently placed at the connection point between this previous access and Pak Tam Road forming a blockade.

- (d) The eastern peripheral area of the "V" zone for Pak Tam Au, which covers a freshwater marsh with protected and locally endangered orchid, *Liparis ferruginea* (鏽色羊耳蒜), should be rezoned to "CA" (**Plan 2i**).
- (e) Water bodies at Pak Tam Au, such as ponds and watercourses, are habitats for the rare Hong Kong Paradise Fish. These water bodies and their adjoining areas with a minimum distance of 30 m should be zoned "CA" (**Plan 2i**). In addition, the seasonal wet grassland at the eastern peripheral area of the "V" zone for Pak Tam Au should be rezoned from "V" to "CA".
- (f) Under the Schedule of Uses of the "GB" zone, 'Barbecue Spot', 'Picnic Area', 'Public Convenience' and 'Tent Camping Ground' should be transferred from Column 1 to Column 2 in order to impose stricter planning control on these activities and their pollution impacts.
- (g) The CPEs should be covered by appropriate land use zoning such as the "CA" in view of the high conservation importance. Due to the strong ecological and functional linkages with the adjoining Country Park system, the government should consider incorporating the CPEs, or areas of high conservation importance thereat, into the Country Park.

4. Planning Department's Responses

- 4.1 In consultation with departments concerned, the Planning Department (PlanD)'s responses to the above comments/proposals are as follows:
 - (a) There are two divergent views on the boundaries of the "V" zones. The local villagers request for a larger "V" zone for To Kwa Peng in view of the presence of outstanding Small House applications and private land, whereas the environmental concern groups comment that the "V" zones are too large and should be confined to the existing village settlements and approved Small House sites.
 - (b) On the one hand, with a wide spectrum of natural habitats including, *inter alia*, mature woodland, natural stream, estuarine mangrove and mudflat, etc., there is a need to cover these areas with conservation zonings on nature conservation and landscape planning considerations. On the other hand, due to the presence of the two recognized villages with Small House demand, there is also a need to reserve areas of land suitable for village expansion.
 - (c) In drawing up the OZP, a proper balance has been struck between nature conservation and respecting villagers' development needs. Areas of environmentally sensitive areas, including coastal mangrove, mudflat, natural stream and mature woodland are covered by conservation zonings, such as "CA", "CPA" and "GB". Areas suitable for Small House development covering the existing village clusters and the adjoining scrubland, grassland, disturbed and young woodland and abandoned agricultural land are zoned "V".

- (d) Admittedly, while "V" land in To Kwa Peng is insufficient to meet the Small House demand, there is surplus land in Pak Tam Au to partly make up the shortfall in To Kwa Peng. **Table 1** of **Annex XII** sets out the supply and demand of Small House in these two villages. Also there is provision in the Notes of the OZP to allow for application for Small House in "GB" zone under section 16 of the Ordinance.
- 4.2 Responses to the specific proposals are:

Proposals to extend "V" zones

Rezoning from "GB", "CA" and "CPA" to "V" at To Kwa Peng

- (a) The local villagers propose to expand the "V" zone to the adjoining areas currently zoned "GB" (Area A) and "CA" (Areas B1 and B2) at To Kwa Peng (Plan 1g). Area A covers the riparian zone of the natural stream, Area B1 covers part of the *fung shui* woodland and Area B2 is a secondary woodland. A majority of land within Areas A and B2 fall outside the village 'environs'. These are ecologically sensitive habitats, rezoning these areas to "V" is not justified.
- (b) IIR of To Kwa Peng proposes to extend the "V" to an area (**Area C**) zoned "CPA" on the western coast partly lying outside the village 'environs' (**Plan 1g**). **Area C** is a significant landscape resource in the area. Should **Area C** be rezoned to "V", the resultant "CPA" zone would become narrow and elongated in configuration, which is considered undesirable to serve the function as a visual buffer to the scenic coastline.

Rezoning from "CA" to "V" at Pak Tam Au

- (c) The area proposed to be rezoned from "CA" to "V" to facilitate in-situ re-provision of the previous alternative access comprises both private and government land primarily lying outside the village 'environs'. Currently, the alternative access road, which is largely formed (about 3m in width), is closed with concrete barriers at the run-in connecting to Pak Tam Road (**Plans 2g and 2h**). The adjoining areas on both sides are overgrown with dense vegetation.
- (d) For the areas along both sides of the alternative access road, as they currently cover extensive areas overgrown with dense vegetation, the Director of Agriculture, Fisheries and Conservation (DAFC) does not support rezoning the vegetated areas beyond the access road from "CA" to "V" from nature conservation point of view.
- (e) There are existing trees with spreading crown along both sides of the alternative access road forming a closed canopy. The proposal involves road widening, vegetation clearance and/or crown pruning, which would adversely affect the landscape resources. Tree felling should be minimized and compensatory and/ or restoration of planting proposal of those disturbed area and landscape resources should be provided.

(f) For the alternative access road, according to the covering Notes of the draft OZP, in areas zoned "CA", road works co-ordinated or implemented by the Government and maintenance or repair of road are always permitted. Subject to the detailed scheme of the proposal, no planning permission from the Board is required if no diversion of streams, filling of land/ pond or excavation of land is involved. Given that the areas on both sides of the access road are covered by dense vegetation forming a closed canopy, rezoning these areas and the access road to "V" is therefore not justified.

Proposals to confine "V" zones

Rezoning from "V" to "CA" at To Kwa Peng

(g) The woodland at the western portion of To Kwa Peng proposed by the environmental concern groups to be rezoned from "V" to "CA" (**Plan 1h**) comprises both government and private land primarily lying within the village 'environs'. Unlike the surrounding areas which are mainly covered by relatively undisturbed native woodland adjacent to the Country Park zoned "CA" on the OZP, as pointed out by the DAFC, the areas are actually relatively disturbed, young woodland and shrubby grassland developed from abandoned agricultural land. There is no strong justification for rezoning the area to "CA".

Rezoning from "V" to "CA" at Pak Tam Au

- (h) Based on the latest ecological information, the DAFC advises that the proposed "CA" zoning for the freshwater marsh at the eastern peripheral area of the "V" zone for Pak Tam Au is considered appropriate from nature conservation perspectives as the area has ecological interest with protected and locally endangered orchid, *Liparis ferruginea* (鏽色羊耳蒜) (**Plan 2i**). It is proposed to amend the draft OZP by rezoning the freshwater marsh (about 0.24 ha) from "V" to "CA" (**Plan 2j**) as per the DAFC's expert advice. The area of the "V" zone for Pak Tam Au will be reduced from 3.64 ha to 3.40 ha, which is still sufficient to meet the 10-year Small House demand for Pak Tam Au (**Table 2** of **Annex XII**).
- (i) As regards the proposal to zone all the water bodies at Pak Tam Au, such as ponds and watercourses, and their adjoining areas with a minimum distance of 30 m, as well as the seasonal wet grassland as "CA" (**Plan 2i**), according to the DAFC, there is no Ecologically Important Stream (EIS) in the area. Besides, the ponds and the major parts of the streams have already been zoned "CA" on the draft OZP. Part of a stream, which passes through the middle of the "V" zone, is a concrete channelized stream and rezoning it from "V" to "CA" is considered not appropriate in accordance with AFCD's advice. For the seasonal wet grassland, the DAFC considers that there is no strong justification on ecological grounds for the "CA" zoning.

(j) Regarding the concern on potential impacts of developments in particular Small Houses on the existing stream courses, it should be noted that in accordance with the Environmental, Transport and Works Bureau's Technical Circular (Works) No. 5/2005, under the current administrative practice, development proposals/submissions that may affect natural streams / rivers, the approving / processing authorities at various stages of the development should consult and collate comments from the DAFC and relevant authorities and incorporate relevant comments/advice as conditions of approval wherever possible. Accordingly, Lands Department (LandsD) when processing Small House grant and applications in close proximity to existing stream courses, should consult concerned departments including the DAFC and PlanD to ensure that all relevant departments would have adequate opportunity to review and comment on the applications. It has been clearly stated in the Explanatory Statement of the "V" zone that when processing Small House grant and applications in close proximity to existing stream courses, the DAFC and PlanD should be consulted.

Other specific proposals

Rezoning from "CA" to "CPA" at To Kwa Peng

(k) Regarding the proposal to rezone **Area D** from "CA" to "CPA" (**Plan 1g**), the DAFC is of the view that the woodland on the eastern side of the To Kwa Peng area (**Area D**) consist of secondary woodland on hillside which is ecologically-linked to the adjoining wood areas and fung shui wood in the adjacent Country Park, zoning the areas concerned as "CA" is more appropriate.

Rezoning from "GB" to "CA" at To Kwa Peng

- (l) For the proposal to rezone the natural stream and the adjoining areas at To Kwa Peng from "GB" to "CA" (**Plan 1h**), the DAFC comments that the subject stream is not an EIS. The areas adjoining the natural stream are mainly covered by relatively disturbed, young woodland and shrubby grassland developed from abandoned agricultural land. Hence, the current "GB" zoning for the area is considered appropriate.
- (m) On the concern over the Small House developments within the "GB" zone, there is a general presumption against development within the "GB" zone. Any potential Small House development within the "GB" zone is subject to planning control since any new proposed Small House within the "GB" zone requires planning permission from the Board and each case will be considered on its individual merits. The Board may also impose appropriate planning approval conditions to ensure that the proposals would not have adverse impacts on the area.

"Destroy first" approach

(n) Another concern is that the "V" zone of To Kwa Peng, which covers an area with previous signs of excavation and tree felling, would encourage the "destroy first" approach to reduce its ecological value to get favourable development on the OZP (**Plan 1h**). It should be noted that some land to the north-west of the village cluster of To Kwa Peng was previously disturbed by excavation and vegetation clearance from 2009 to 2010 before the gazetting of the draft To Kwa Peng and Pak Tam Au DPA Plan No. DPA/NE-TKP/1 under section 5 of the Ordinance on 7.1.2011, and is now recovered with wild grasses and shrubs. According to the information of relevant departments, there is no evidence to prove that the excavation work and vegetation clearance are associated with any attempt to destroying the area in return for the Board's favourable consideration for development.

Amending the Notes of "GB" zone

(o) With regard to 'Barbecue Spot', 'Picnic Area', 'Public Convenience' and 'Tent Camping Ground'², the DAFC advises that adverse impacts from such uses onto the subject "GB" zone might not be significant and he has no strong views on keeping these uses in Column 1 of the subject "GB" zone. The Schedule of Uses for the "GB" zone primarily follows the Master Schedule of Notes to Statutory Plans (MSN) and there is no strong justification to amend the Notes of the "GB" zone.

Designation of conservation zoning/ Country Park

- (p) The PlanD, in preparing the draft OZPs, has assessed the detailed land use proposals and consulted relevant departments and stakeholders in deciding whether conservation zonings are necessary.
- (q) With respect to the proposal to incorporate the CPEs into the Country Park, it is under the jurisdiction of the Country and Marine Parks Board (CMPB) under the Country Parks Ordinance (Cap. 208) which is outside the purview of the Board.
- 4.3 In summary, apart from the proposed amendment in relation to the rezoning of the freshwater marsh at Pak Tam Au from "V" to "CA" as shown on **Plan 2j**, other land use zonings on the draft OZP (renumbered as **S/NE-TKP/C**) are considered appropriate.

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² 'Barbecue Spot' and 'Picnic Area' are facilities operated by the Government and exclude sites that are privately owned and/or commercially operated. 'Public Convenience' refers to any latrine within the meaning of Section 2 of the Public Health and Municipal Services Ordinance (Cap. 132) and any bathhouse maintained, managed and controlled by the Government for use of the public, and 'Tent Camping Ground' refers to any place open to the public where tents are put up only for temporary lodging for recreational or training purpose.

5. <u>Land Use Zonings</u> (Annex I)

Having regard to the above, the proposed land use zonings of the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/C are as follows:

"Village Type Development": Total Area 5.34 ha

- 5.1 A total of about 5.34 ha of land comprising 1.94 ha for To Kwa Peng and 3.40 ha for Pak Tam Au are zoned "V" to cover the existing village clusters and their village expansion areas. The boundaries of the "V" zone are drawn up having regard to the village 'environs', the number of outstanding Small House applications, Small House demand forecast, local topography and site constraints. Areas of difficult terrain, dense vegetation, stream courses and burial grounds have been avoided as far as possible.
- 5.2 Land within this zone is primarily intended for development of Small Houses by indigenous villagers. It is also intended to concentrate village type development within this zone for a more orderly development pattern, efficient use of land and provision of infrastructures and services. Selected commercial and community uses serving the needs of the villagers and in support of the village development are always permitted on the ground floor of a New Territories Exempted House. Other commercial, community and recreational uses may be permitted on application to the Board.

"Green Belt": Total Area 1.79 ha

- 5.3 To define the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets, about 1.79 ha of land are zoned "GB".
- 5.4 The "GB" covers the vegetated hillslopes, natural stream and woodland adjoining the west of the "V" zone of the existing main village cluster of To Kwa Peng and the traditional burial ground at the vegetated hillslopes and woodland at the southwestern part of Pak Tam Au. These "GB" zones mainly comprise relatively disturbed, young woodland and shrubby grassland developed from abandoned agricultural land, which provide a buffer between the development and conservation areas or Country Park area.

"Conservation Area": Total Area (16.75 ha)

5.5 A total of about 16.75 ha of land are zoned "CA" to protect and retain the existing natural landscape, ecological or topographical features of the area for conservation, educational and research purposes and to separate sensitive natural environment such as Country Park from the adverse effects of development.

The "CA" zoning mainly covers the *fung shui* woods behind the villages and the adjoining wooded areas. These woodlands are quite natural in character and are ecologically-linked with the wide stretch of vegetation in the Sai Kung East Country Park. There is a variety of protected plant species and animal species of conservation concern. The "CA" zoning also covers the freshwater marsh with protected and locally endangered orchid, *Liparis ferruginea* (鎌色羊耳蒜) to the east of the *fung shui* woods. It is intended that with stringent planning control imposed under this zoning, the rich ecological and biological features in the areas can be protected and preserved.

"Coastal Protection Area": Total Area (1.08 ha)

- 5.7 About 1.08 ha of land are zoned "CPA" to protect and retain the coastlines and the sensitive coastal environment, including attractive geological features, physical landform or area of high landscape, scenic or ecological significance, with a minimum of built development.
- 5.8 The "CPA" zone is designated for the coastal areas of To Kwa Peng along Ko Tong Hau, where estuarine mangrove and mudflat habitats locate. The "CPA" zone is intended to conserve the coastal habitats and provide visual buffer to the scenic coastline.

6. Consultation

The TPDC and SKNRC will be consulted after the Board's agreement to the publication of the draft To Kwa Peng and Pak Tam Au OZP under section 5 of the Ordinance during the exhibition period of the OZP.

7. Decision Sought

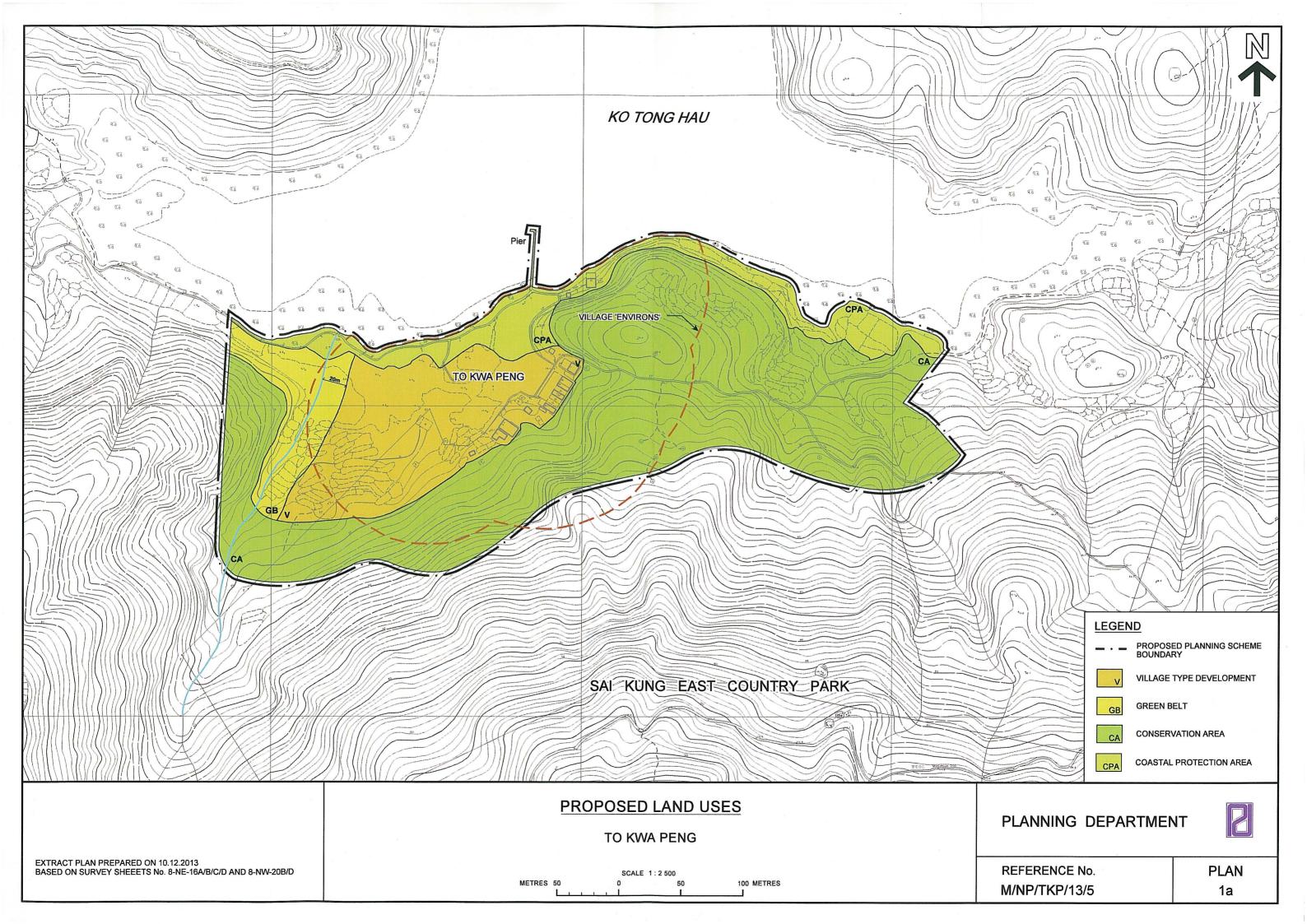
Members are invited to:

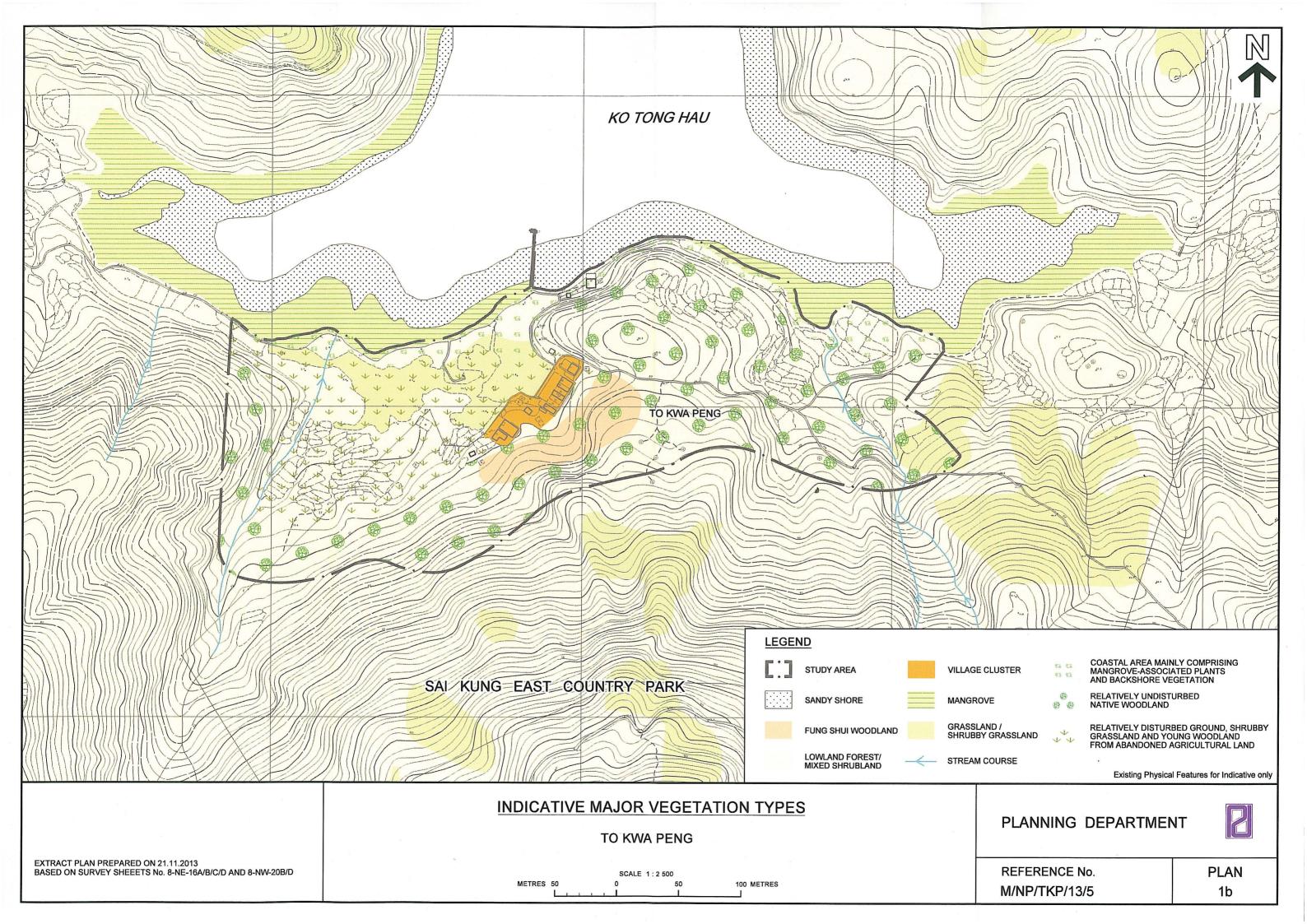
- (a) note the comments from and responses to the TPDC, SKNRC, environmental concern groups and public views on the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/B;
- (b) agree that the draft To Kwa Peng and Pak Tam Au OZP (to be renumbered as S/NE-TKP/1 upon gazetting) and its Notes (**Annexes I** and **II**) are suitable for exhibition for public inspection under section 5 of the Ordinance;
- (c) adopt the Explanatory Statement (**Annex III**) as an expression of the planning intentions and objectives of the Board for various land use zonings of the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/C; and
- (d) agree that the Explanatory Statement is suitable for exhibition for public inspection together with the draft OZP and issued under the name of the Board.

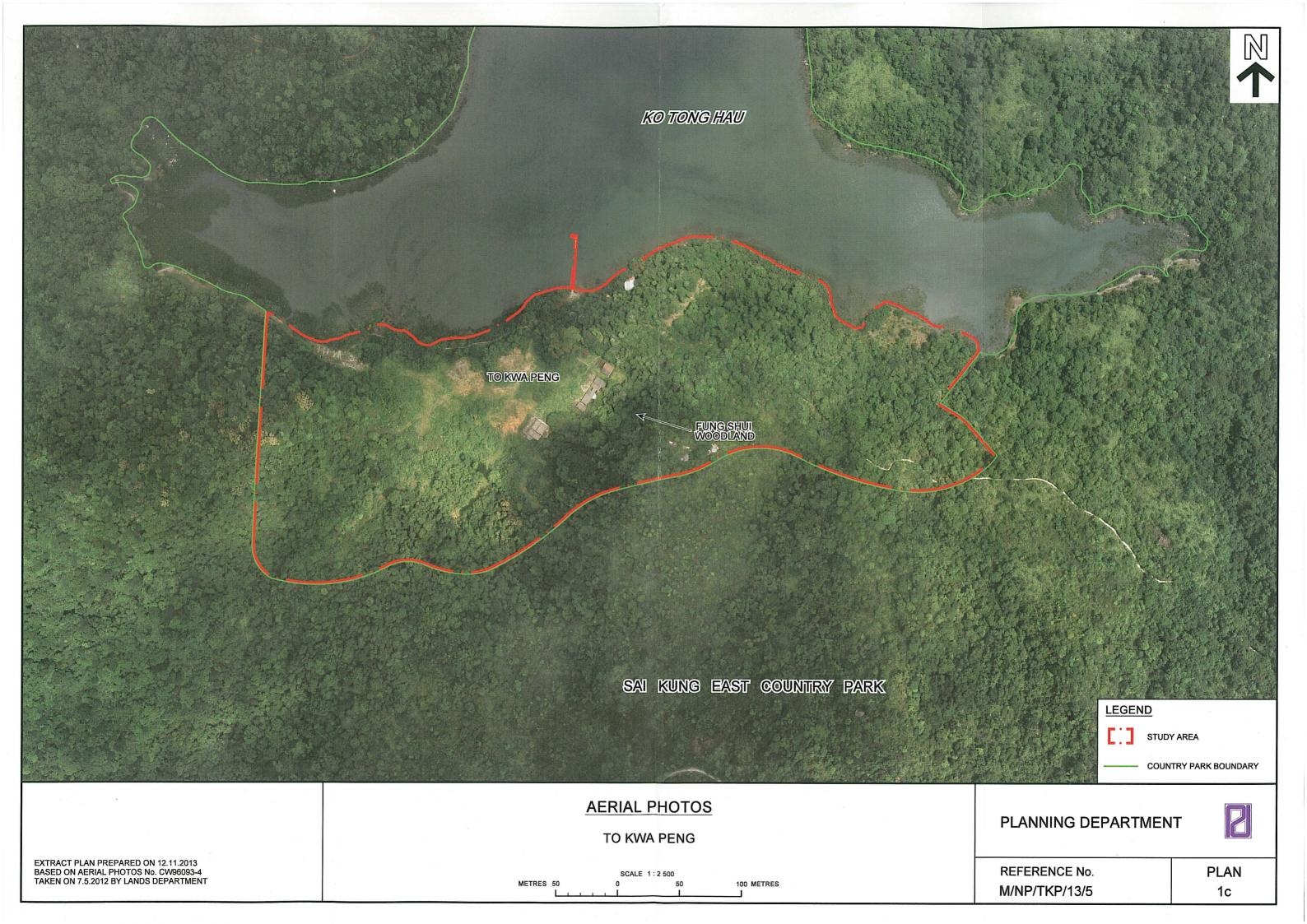
8. Attachments

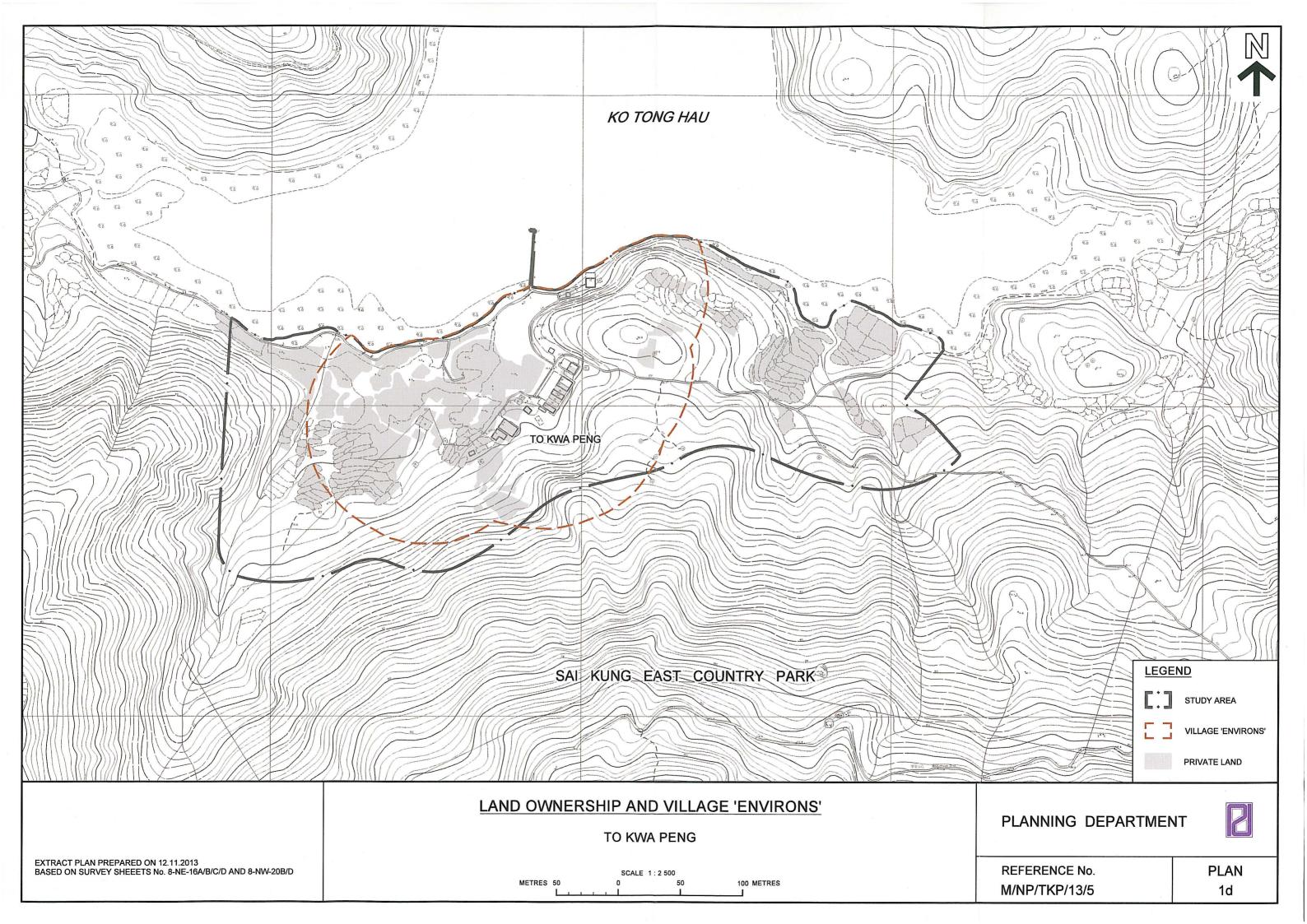
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Plan 1a Plan 1b	Proposed land uses - To Kwa Peng
Plan 1c	Indicative major vegetation types - To Kwa Peng Arial photo of - To Kwa Peng
Plan 1d	Land ownership and village 'environs' - To Kwa Peng
Plan 1e	Proposals from the Sai Kung North Rural Committee – To Kwa Peng
Plan 1f	Proposals from the Indigenous Inhabitant Representative of To Kwa
	Peng dated 11.11.2013
Plan 1g	Proposals from the Indigenous Inhabitant Representative of To Kwa Peng dated 11.11.2013 on draft OZP No. S/NE-TKP/B
Plan 1h	Proposals from environmental concern groups and other public members – To Kwa Peng
Plan 2a	Proposed land uses - Pak Tam Au
Plan 2b	Indicative major vegetation types - Pak Tam Au
Plan 2c	Arial photo of - Pak Tam Au
Plan 2d	Land ownership and village 'environs' - Pak Tam Au
Plan 2e	Proposals from the Sai Kung North Rural Committee – Pak Tam Au
Plan 2f	Proposals from the consultant of Pak Tam Au dated 18.11.2013
Plan 2g	Proposals from the consultant of Pak Tam Au dated 18.11.2013 on draft OZP No. S/NE-TKP/B
Plan 2h	Proposed in-situ reprovision of alternative access road
Plan 2i	Proposals from environmental concern groups and other public members – Pak Tam Au
Plan 2j	Proposed land uses on draft OZP No. S/NE-TKP/C – Pak Tam Au
Annex I	Draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/C
Annex II	Notes of the Draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/C
Annex III	Explanatory Statement of the Draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/C
Annex IV	Extract of Minutes of the Town Planning Board Meeting held on 4.10.2013
Annex V	TPB Paper No. 9441 (considered by the Town Planning Board on 4.10.2013)
Annex VI	Submission from the Indigenous Inhabitant Representative of To Kwa Peng dated 11.11.2013
Annex VII	Proposals from the consultant of Pak Tam Au dated 18.11.2013
Annex VIII	Submission from Kadoorie Farm and Botanic Garden Corporation dated 3.10.2013
Annex IX	Further submission from Kadoorie Farm and Botanic Garden Corporation dated 22.11.2013
Annex X	Submission from two members of the public
Annex XI	Submission from Conservancy Association dated 2.12.2013
Annex XII	Supply and demand of Small House
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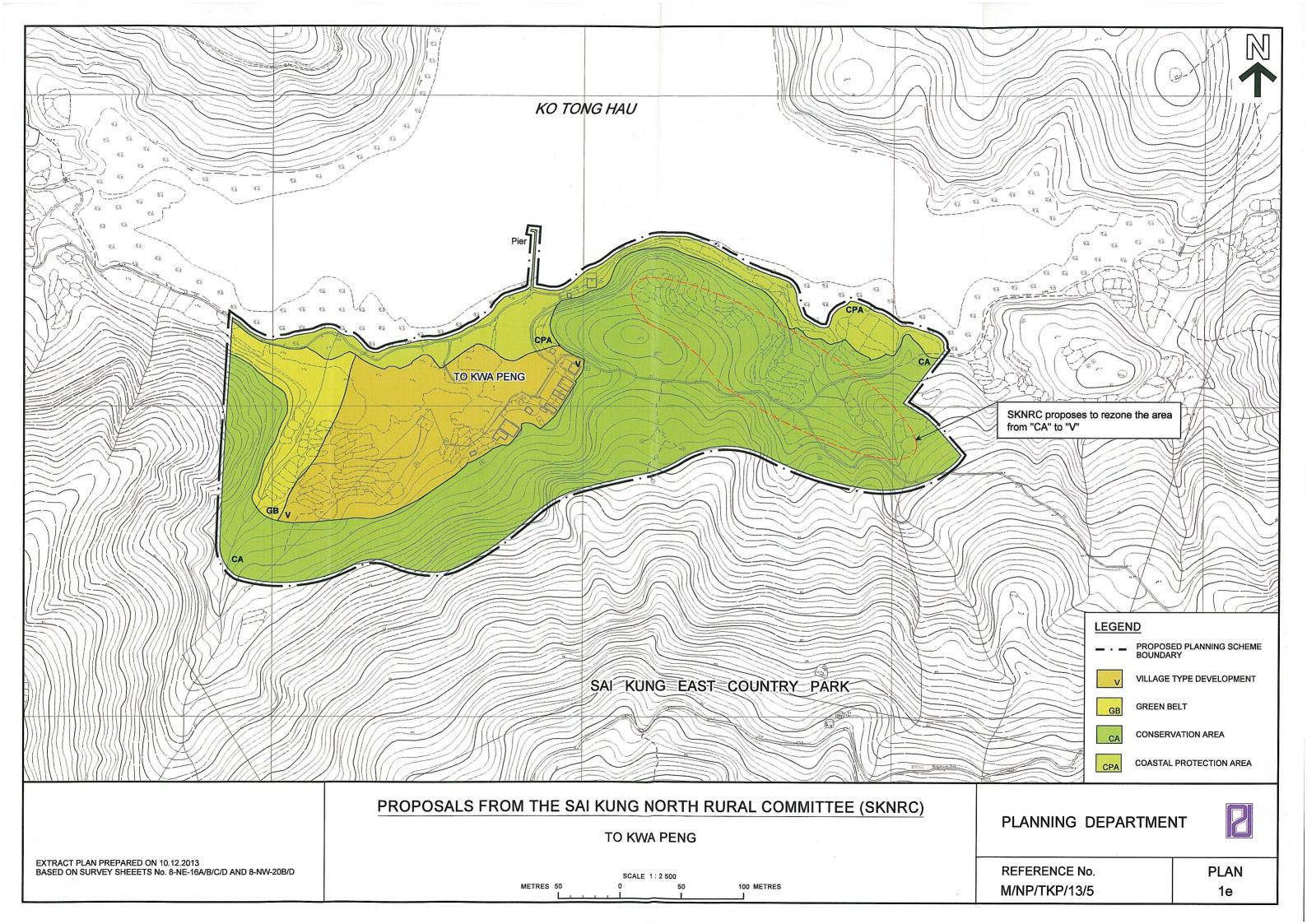
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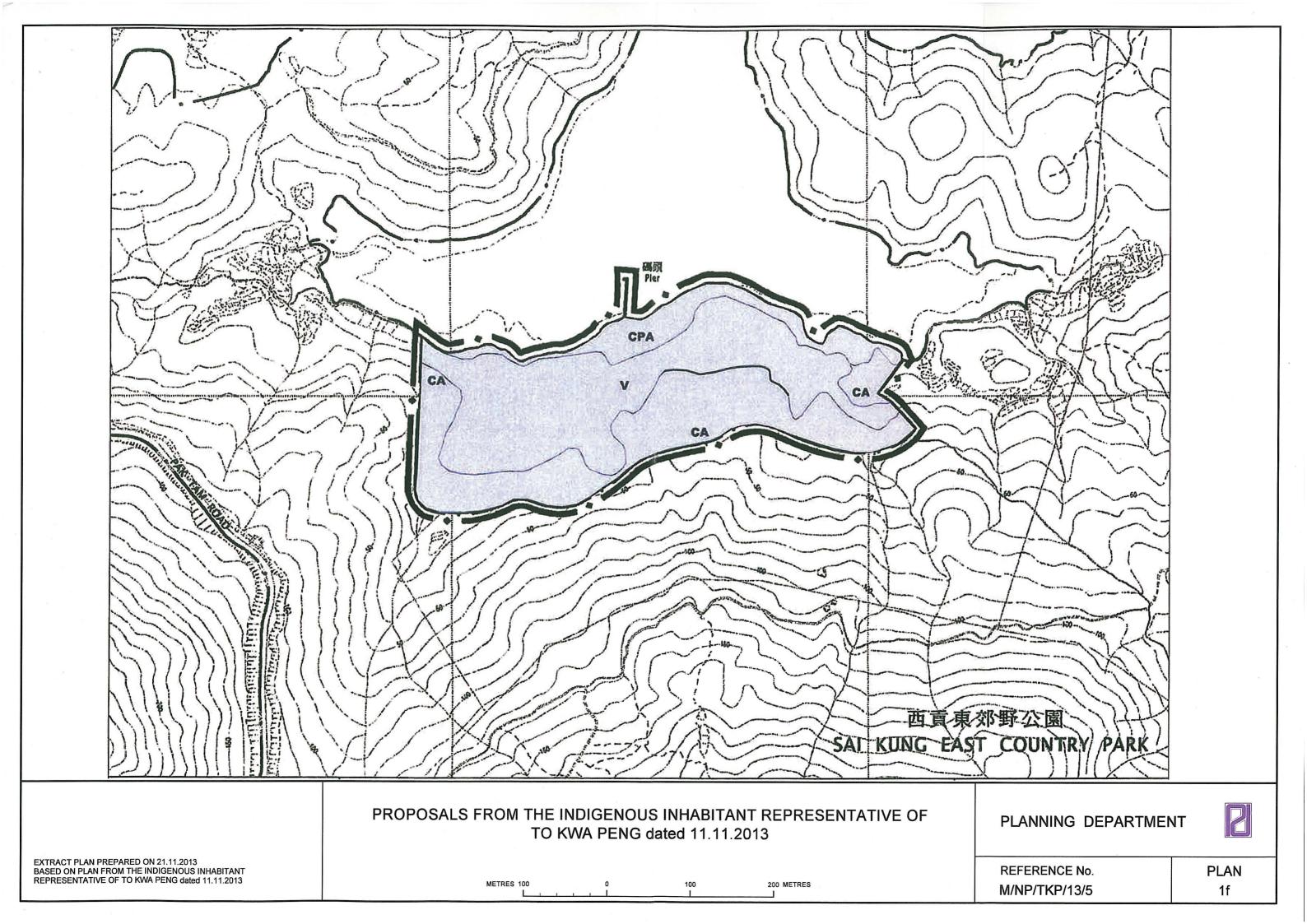


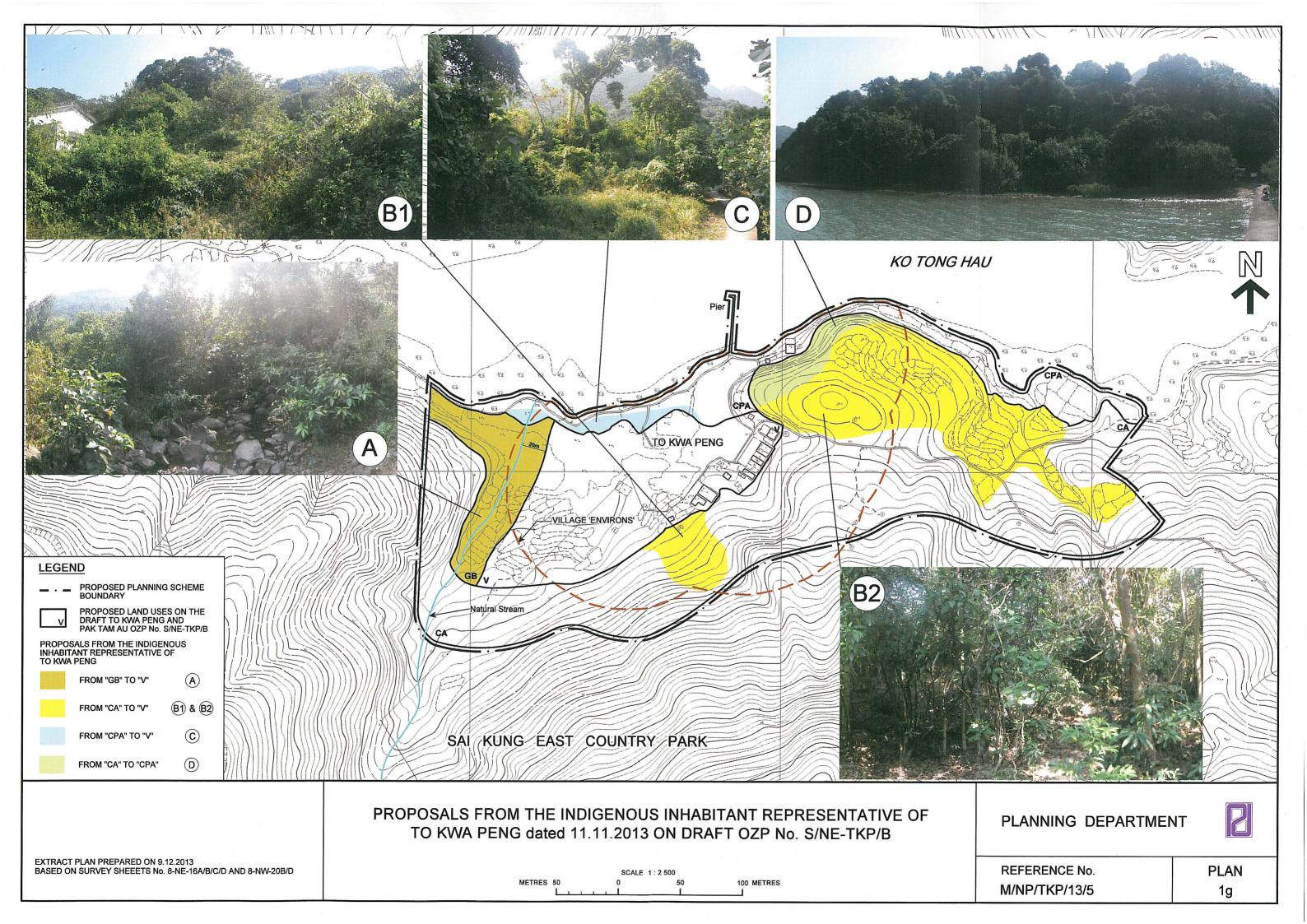


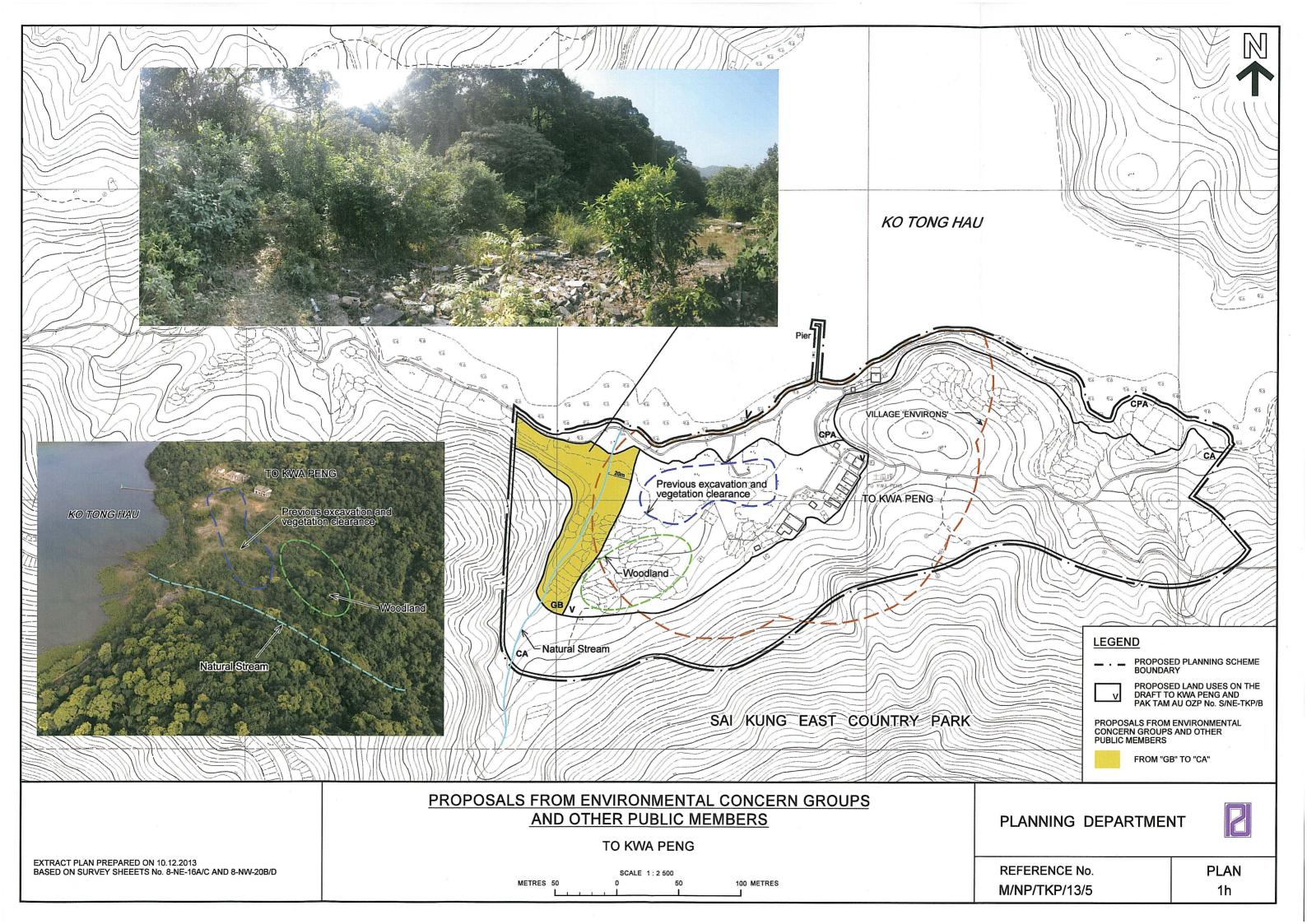


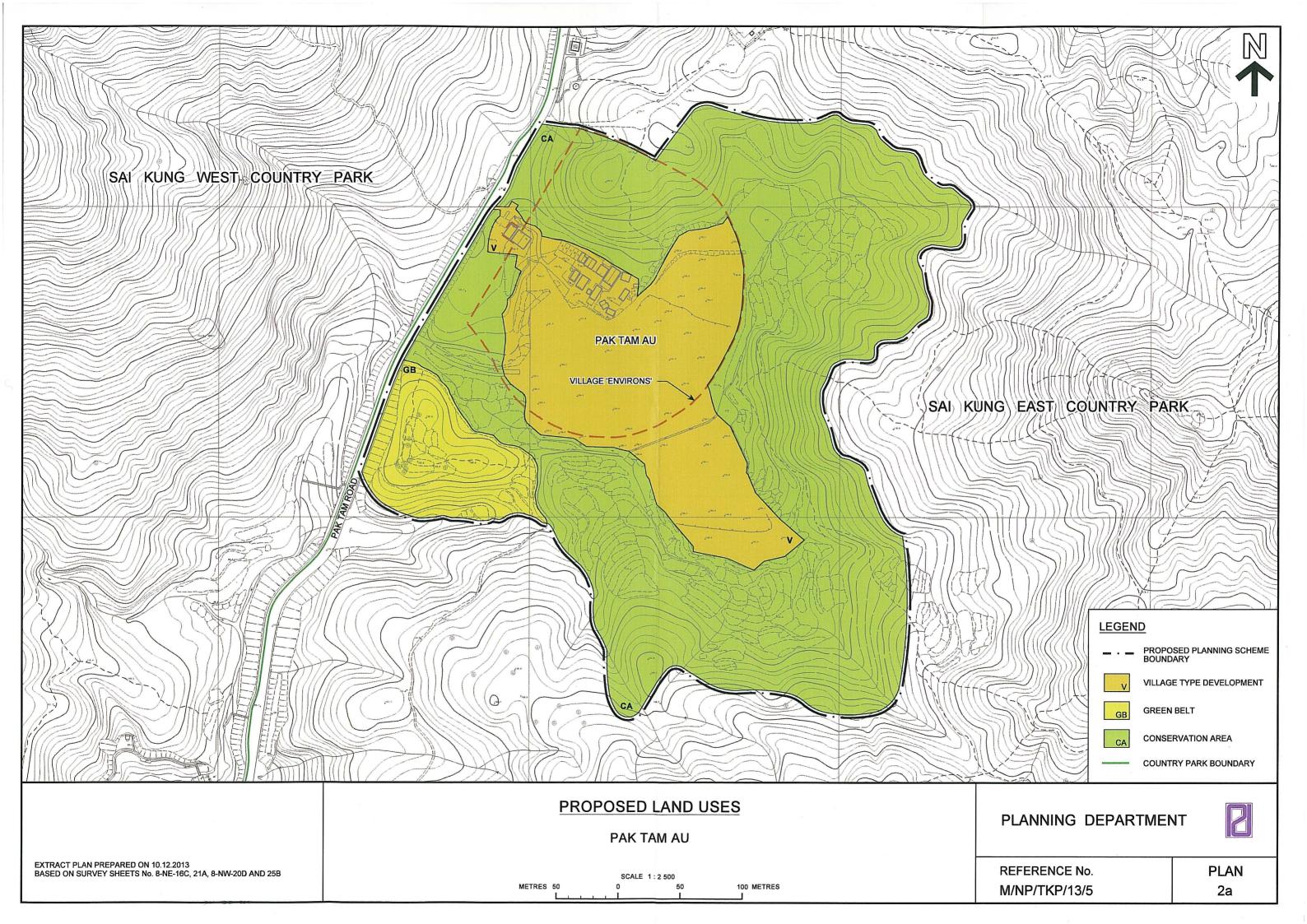


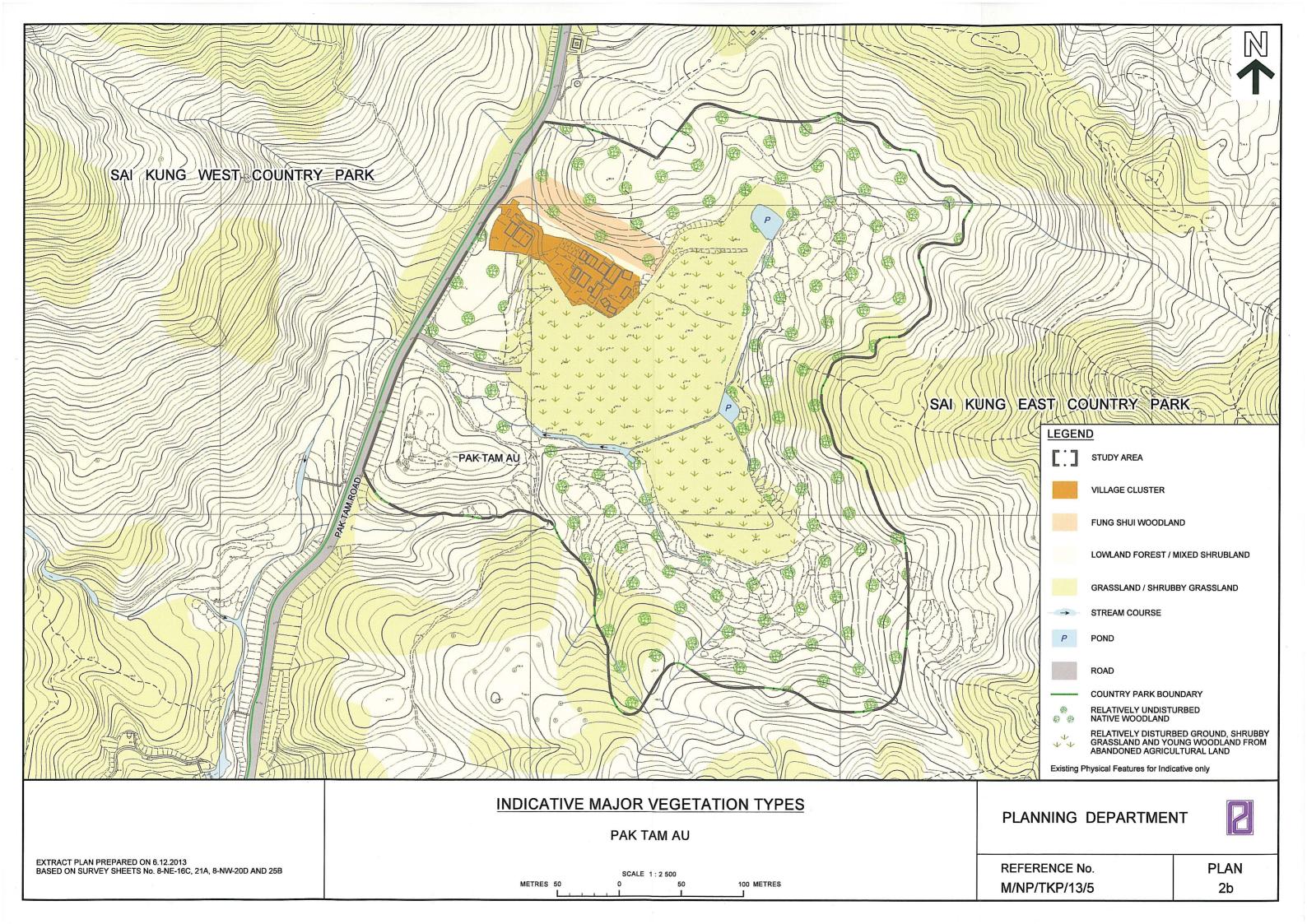


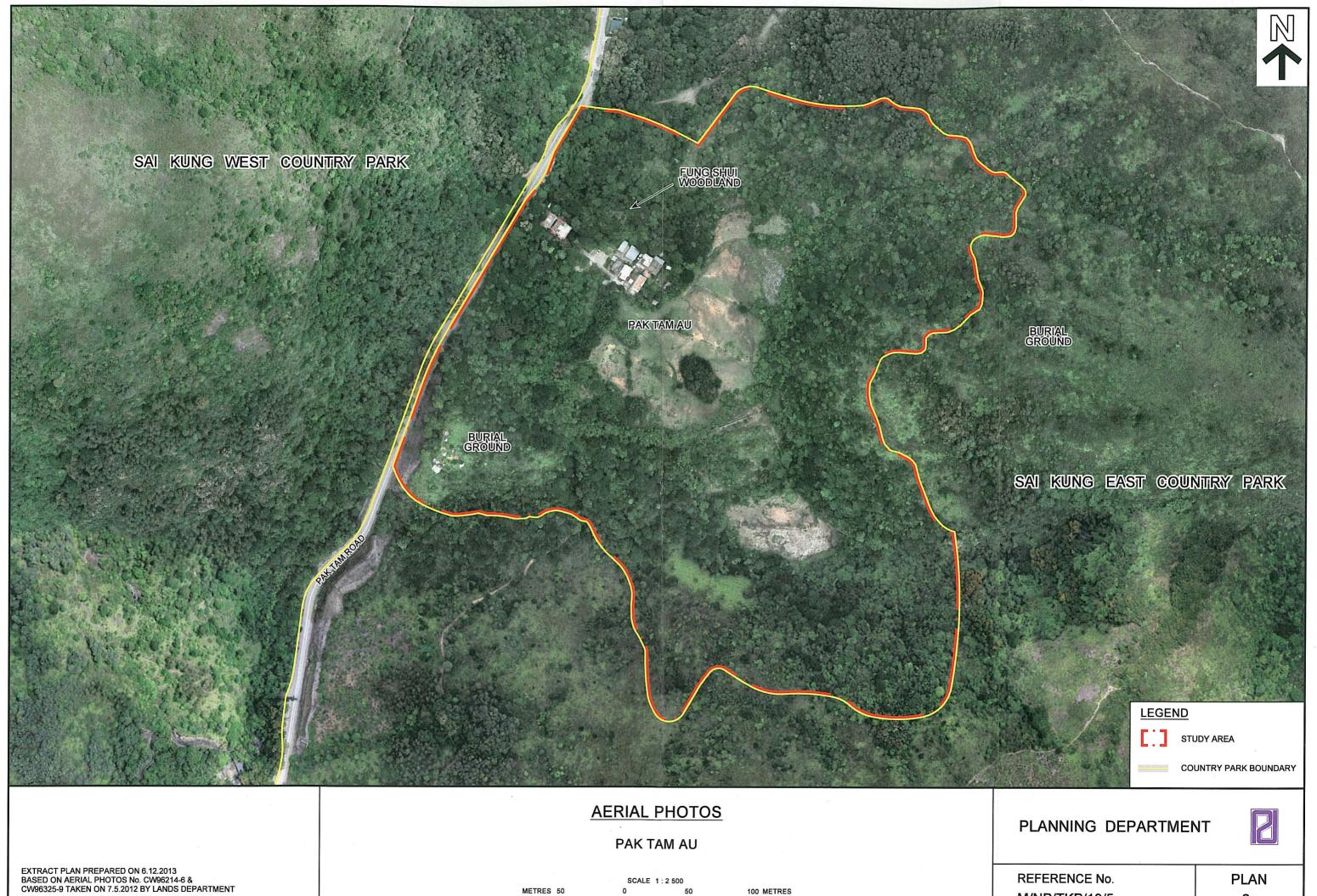








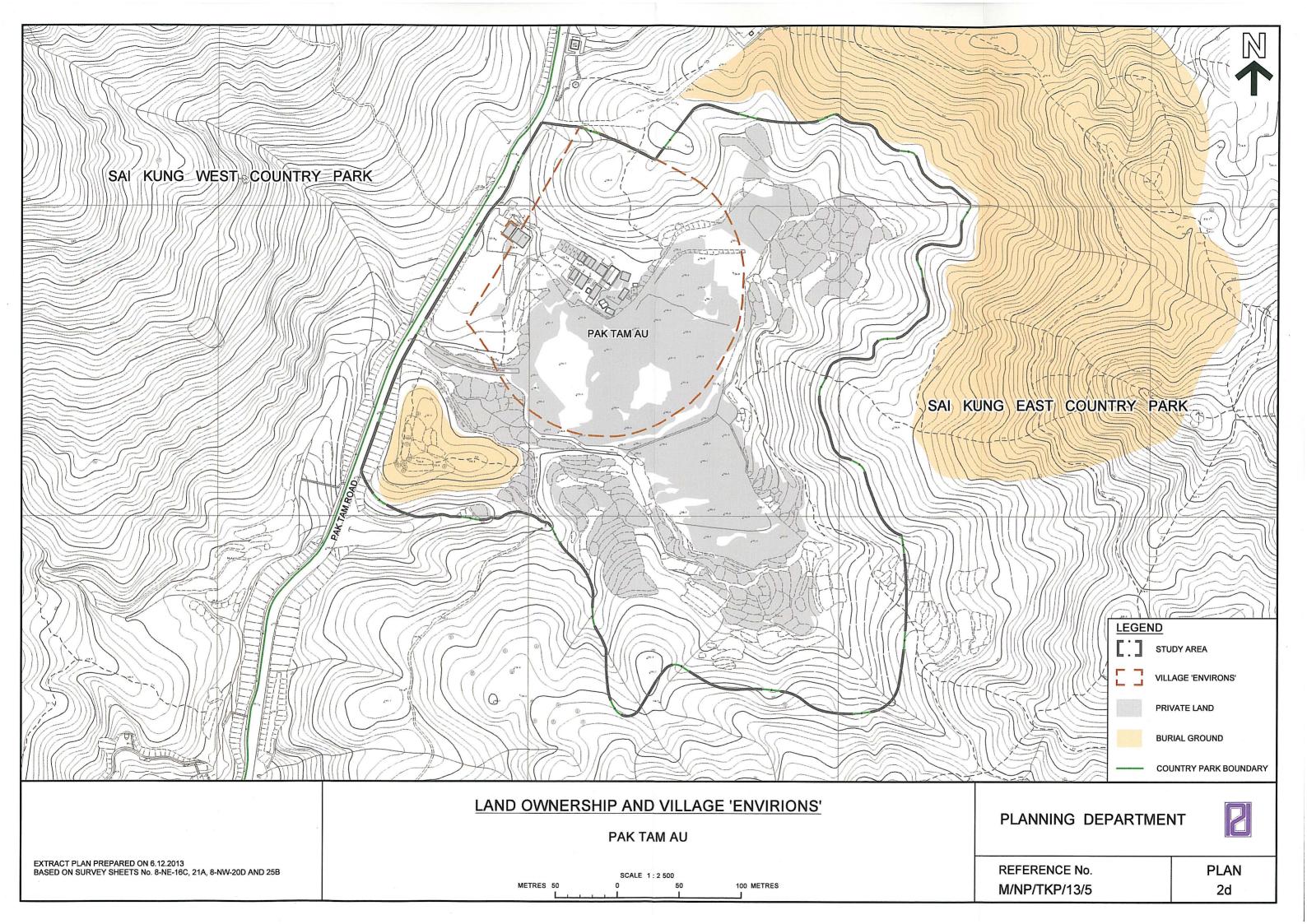


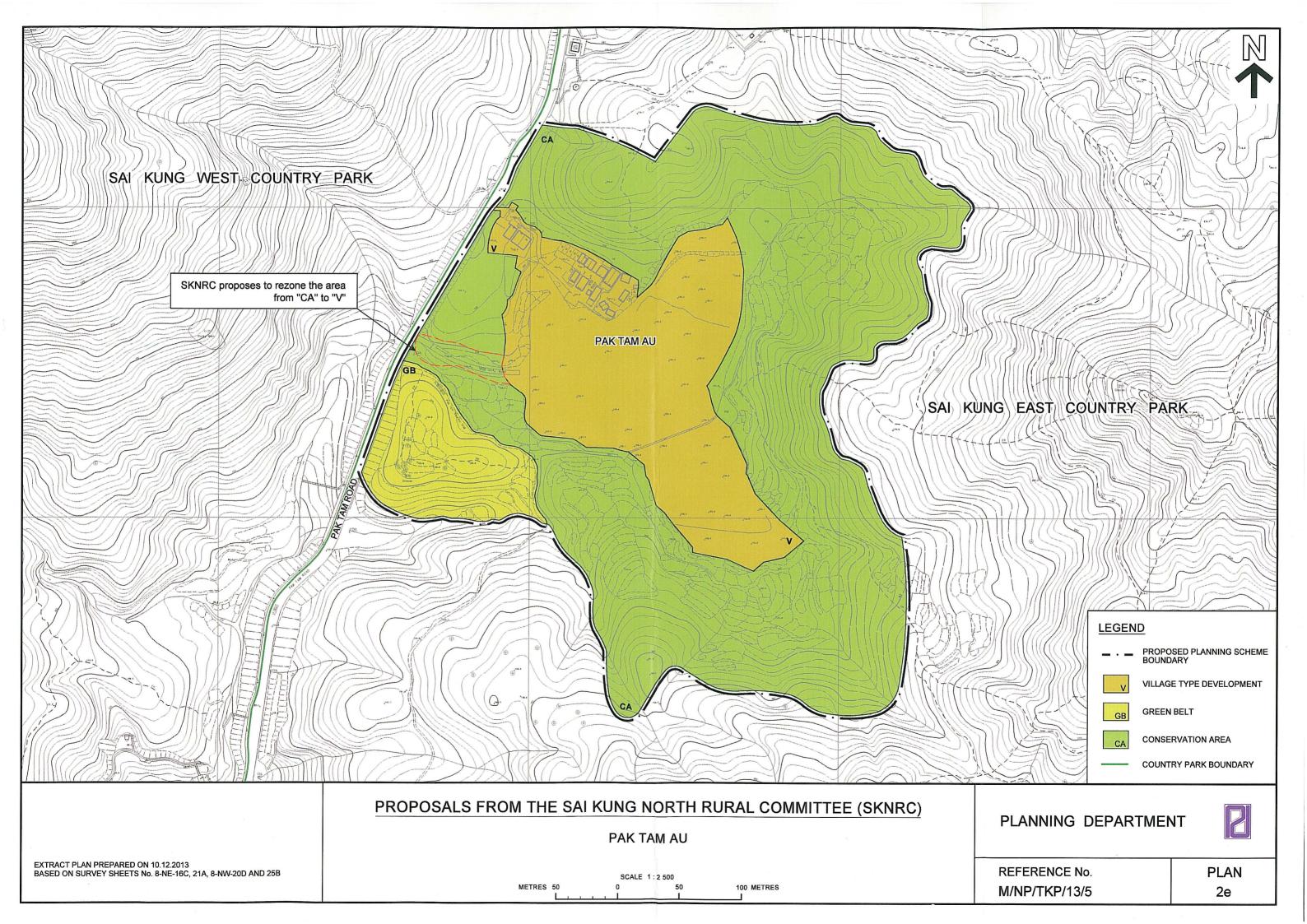


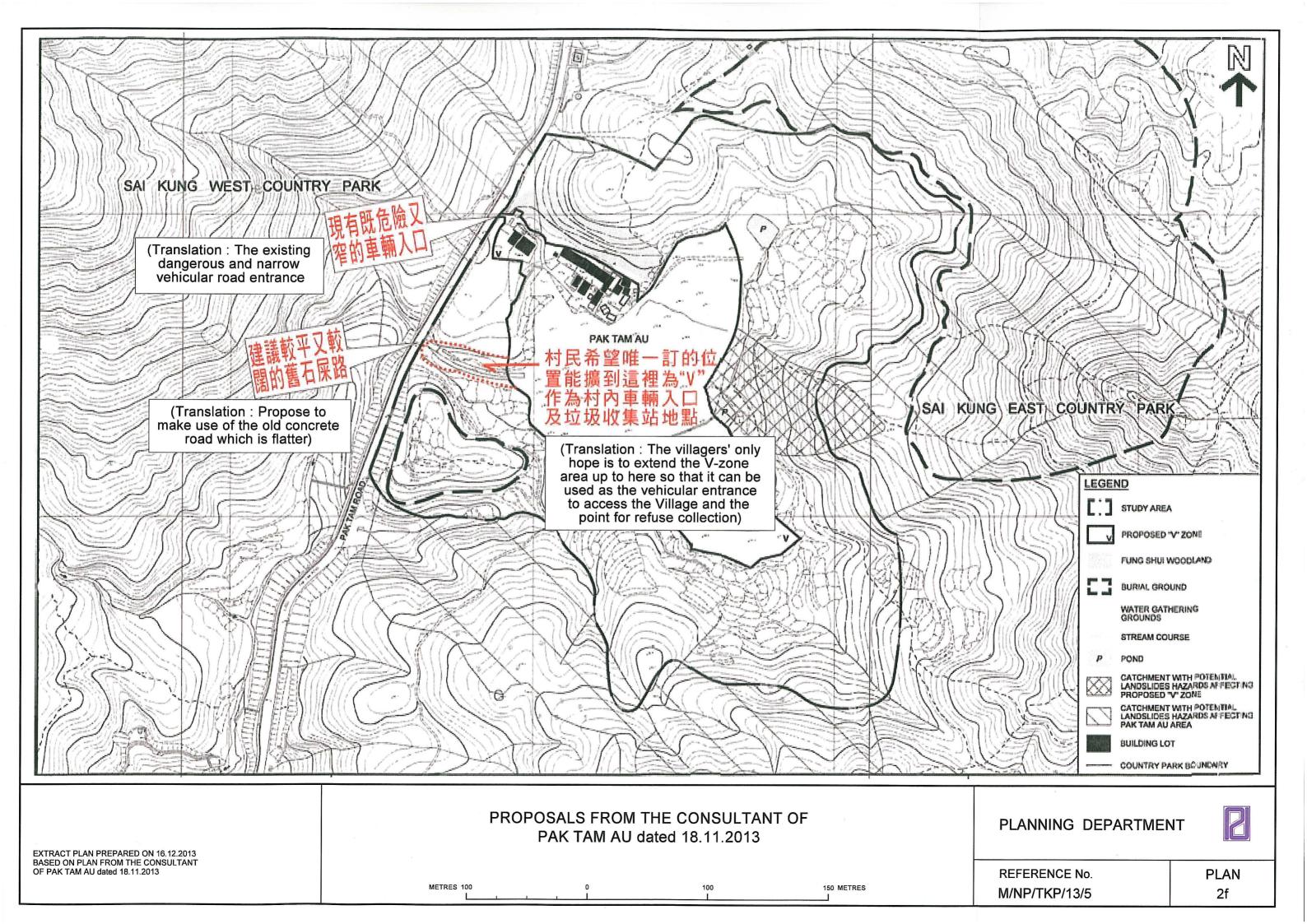
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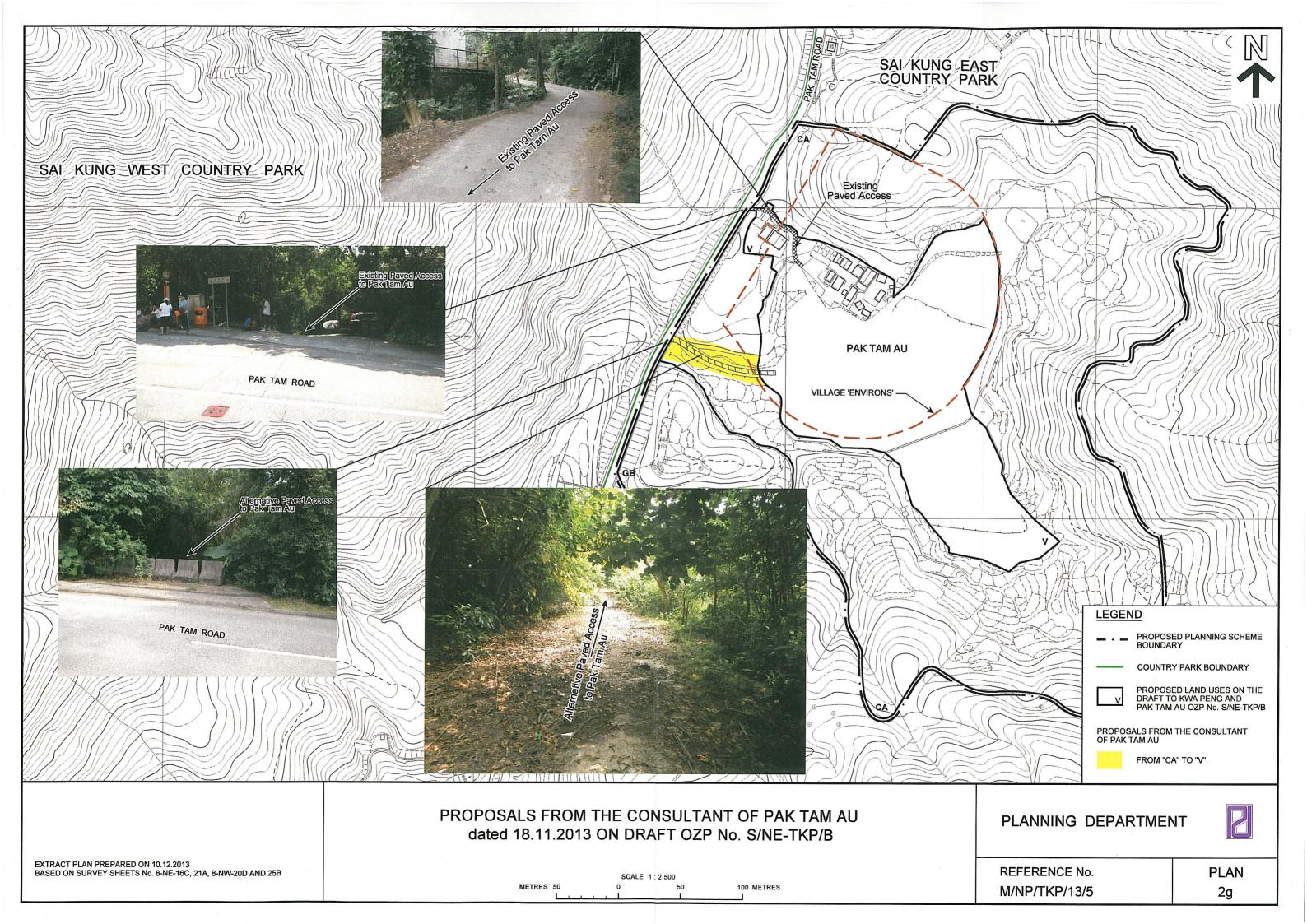
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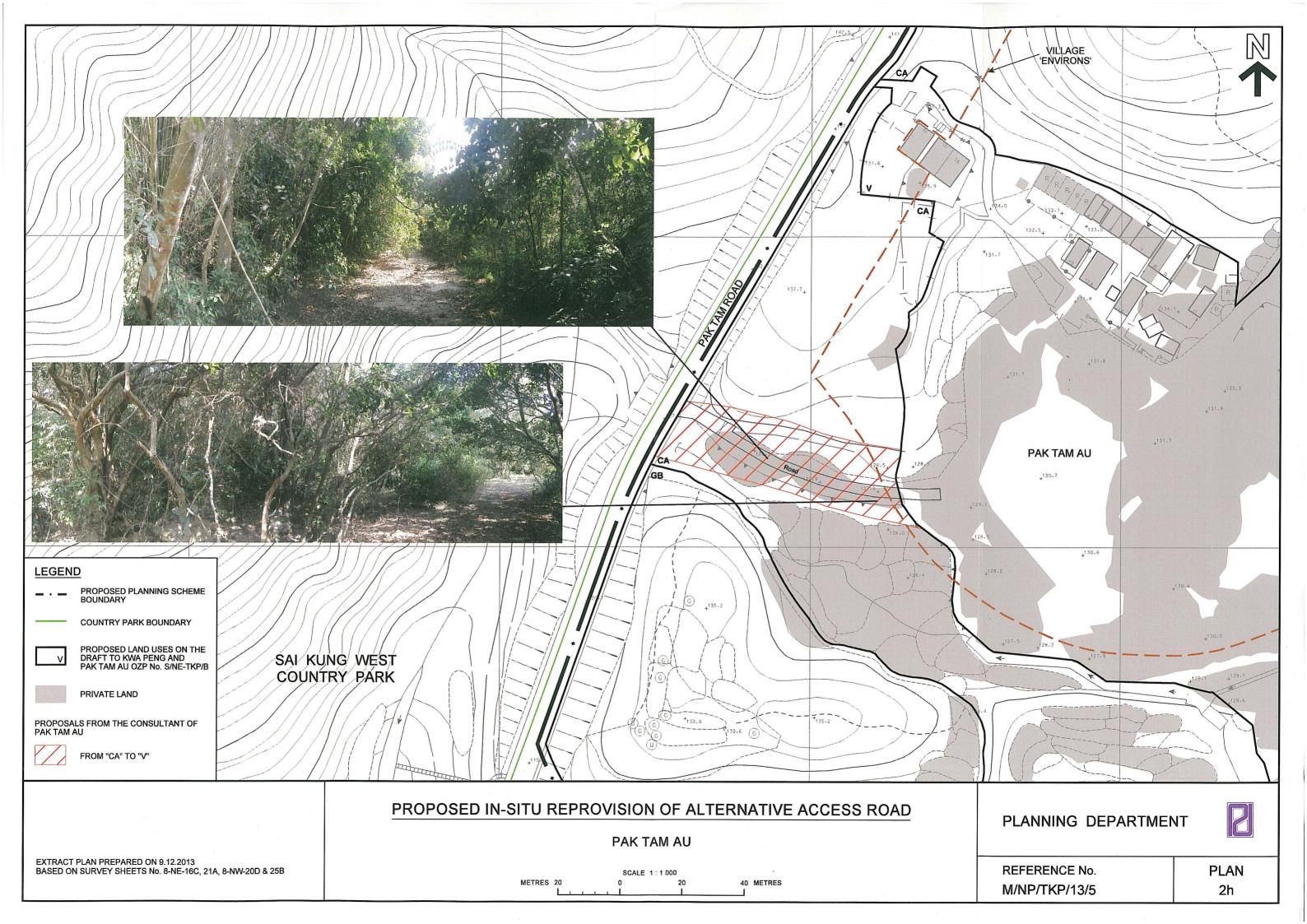
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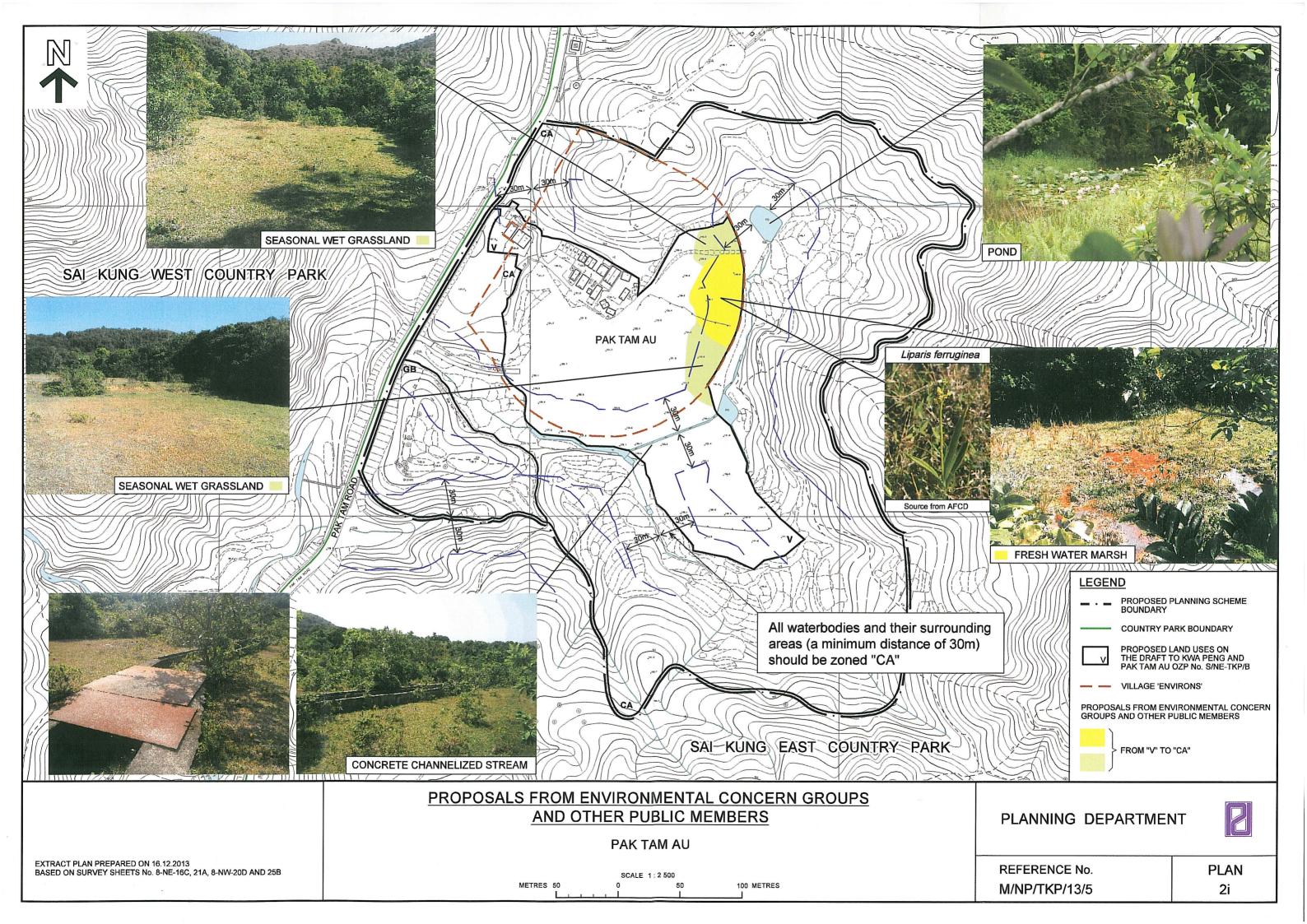


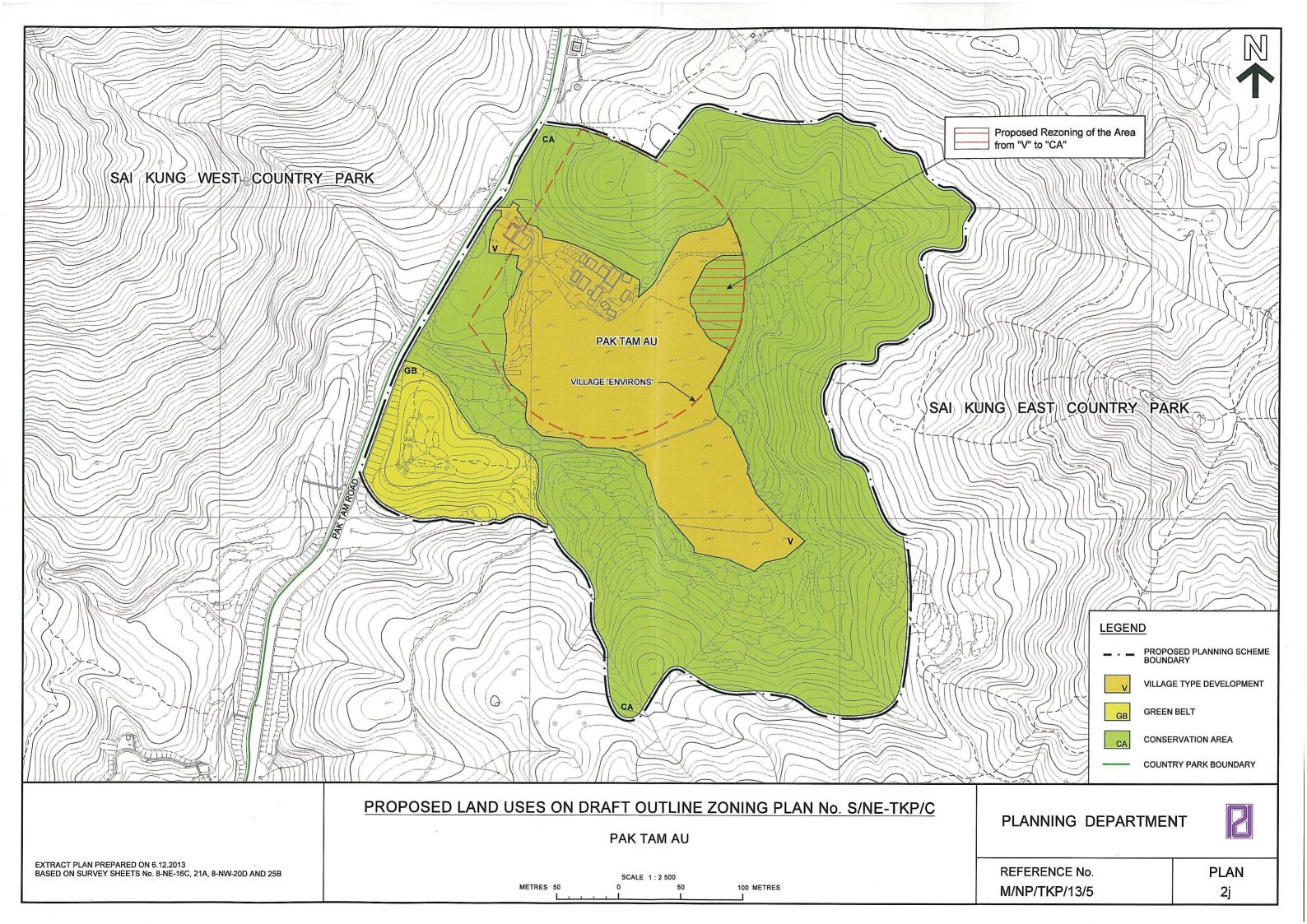












DRAFT TO KWA PENG AND PAK TAM AU OUTLINE ZONING PLAN NO. S/NE-TKP/C

(Being a Draft Plan for the Purposes of the Town Planning Ordinance)

NOTES

(N.B. These form part of the Plan)

- (1) These Notes show the uses or developments on land falling within the boundaries of the Plan which are always permitted and which may be permitted by the Town Planning Board, with or without conditions, on application. Where permission from the Town Planning Board for a use or development is required, the application for such permission should be made in a prescribed form. The application shall be addressed to the Secretary of the Town Planning Board, from whom the prescribed application form may be obtained.
- (2) Any use or development which is always permitted or may be permitted in accordance with these Notes must also conform to any other relevant legislation, the conditions of the Government lease concerned, and any other Government requirements, as may be applicable.
- (3) No action is required to make the use of any land or building which was in existence immediately before the first publication in the Gazette of the notice of the draft development permission area plan conform to this Plan, provided such use has continued since it came into existence. Any material change of such use or any other development (except minor alteration and/or modification to the development of the land or building in respect of such use which is always permitted) must be always permitted in terms of the Plan or in accordance with a permission granted by the Town Planning Board.
- (4) A use or development of any land or building permitted under an earlier draft or approved plan including development permission area plan for the area and effected or undertaken during the effective period of that plan is always permitted under this Plan. Any material change of such use or any other development (except minor alteration and/or modification to the completed development of the land or building which is always permitted) must be always permitted in terms of the Plan or in accordance with a permission granted by the Town Planning Board.
- (5) Except to the extent that paragraph (3) or (4) applies, any use or development falling within the boundaries of the Plan and also within the boundaries of the draft development permission area plan, unless always permitted in terms of the Plan, shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft development permission area plan without permission from the Town Planning Board.

- 2 - <u>S/NE-TKP/C</u>

- (6) Except as otherwise specified by the Town Planning Board, when a use or material change of use is effected or a development or redevelopment is undertaken, as always permitted in terms of the Plan or in accordance with a permission granted by the Town Planning Board, all permissions granted by the Town Planning Board in respect of the site of the use or material change of use or development or redevelopment shall lapse.
- (7) Alignment of roads and boundaries between zones may be subject to minor adjustments as detailed planning proceeds.
- (8) The following uses or developments are always permitted on land falling within the boundaries of the Plan except (a) where the uses or developments are specified in Column 2 of the Notes of individual zones or (b) as provided in paragraph (9) in relation to areas zoned "Conservation Area" or "Coastal Protection Area":
 - (a) maintenance, repair or demolition of a building;
 - (b) provision, maintenance or repair of plant nursery, amenity planting, open space, rain shelter, refreshment kiosk, footpath, bus/public light bus stop or lay-by, cycle track, taxi rank, public utility pipeline, electricity mast, lamp pole, telephone booth, telecommunications radio base station, automatic teller machine and shrine;
 - (c) maintenance or repair of road, watercourse, nullah, sewer and drain;
 - (d) geotechnical works, local public works, road works, sewerage works, drainage works, environmental improvement works, marine related facilities and waterworks (excluding works on service reservoir) and such other public works co-ordinated or implemented by Government;
 - (e) rebuilding of New Territories Exempted House;
 - (f) replacement of an existing domestic building, i.e. a domestic building which was in existence on the date of the first publication in the Gazette of the notice of the draft development permission area plan, by a New Territories Exempted House; and
 - (g) provision, maintenance or repair of a grave of an indigenous New Territories villager or a locally based fisherman and his family members for which permission has been obtained from Government.
- (9) In areas zoned "Conservation Area" or "Coastal Protection Area",
 - (a) the following uses or developments are always permitted:
 - (i) maintenance or repair of plant nursery, amenity planting, sitting out area, rain shelter, refreshment kiosk, road, watercourse, nullah, public utility pipeline, electricity mast, lamp pole, telephone booth, shrine and grave;
 - (ii) geotechnical works, local public works, road works, sewerage works, drainage works, environmental improvement works, marine related facilities, waterworks (excluding works on service reservoir) and such other public works co-ordinated or implemented by Government; and

- 3 - <u>S/NE-TKP/C</u>

- (iii) provision of amenity planting by Government; and
- (b) the following uses or developments require permission from the Town Planning Board:

provision of plant nursery, amenity planting (other than by Government), sitting out area, rain shelter, refreshment kiosk, footpath, public utility pipeline, electricity mast, lamp pole, telephone booth and shrine.

(10) In any area shown as 'Road', all uses or developments except those specified in paragraphs (8)(a) to (8)(d) and (8)(g) above and those specified below require permission from the Town Planning Board:

road and on-street vehicle park.

(11) (a) Except in areas zoned "Conservation Area" or "Coastal Protection Area", temporary use or development of any land or building not exceeding a period of two months is always permitted provided that no site formation (filling or excavation) is carried out and that the use or development is a use or development specified below:

structures for carnivals, fairs, film shooting on locations, festival celebrations, religious functions or sports events.

- (b) Except as otherwise provided in paragraph (11)(a), and subject to temporary uses for open storage and port back-up purposes which are prohibited in areas zoned "Conservation Area" or "Coastal Protection Area", temporary use or development of any land or building not exceeding a period of three years requires permission from the Town Planning Board. Notwithstanding that the use or development is not provided for in terms of the Plan, the Town Planning Board may grant permission, with or without conditions, for a maximum period of three years, or refuse to grant permission.
- (c) Temporary use or development of land or building exceeding three years requires permission from the Town Planning Board in accordance with the terms of the Plan.
- (12) Unless otherwise specified, all building, engineering and other operations incidental to and all uses directly related and ancillary to the permitted uses and developments within the same zone are always permitted and no separate permission is required.
- (13) In these Notes, unless the context otherwise requires or unless as expressly provided below, terms used in the Notes shall have the meanings as assigned under section 1A of the Town Planning Ordinance.

"Existing building" means a building, including a structure, which is physically existing and is in compliance with any relevant legislation and the conditions of the Government lease concerned.

- 4 - <u>S/NE-TKP/C</u>

"New Territories Exempted House" means a domestic building other than a guesthouse or a hotel; or a building primarily used for habitation, other than a guesthouse or a hotel, the ground floor of which may be used as 'Shop and Services' or 'Eating Place', the building works in respect of which are exempted by a certificate of exemption under Part III of the Buildings Ordinance (Application to the New Territories) Ordinance (Cap. 121).

DRAFT TO KWA PENG AND PAK TAM AU OUTLINE ZONING PLAN NO. S/NE-TKP/C

Schedule of Uses

	<u>Page</u>
VILLAGE TYPE DEVELOPMENT	1
GREEN BELT	3
CONSERVATION AREA	5
COASTAL PROTECTION AREA	7

VILLAGE TYPE DEVELOPMENT

Column 1 Uses always permitted

Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board

Agricultural Use

Government Use (Police Reporting Centre,

Post Office only)

House (New Territories Exempted

House only)

On-Farm Domestic Structure

Religious Institution

(Ancestral Hall only)

Rural Committee/Village Office

Burial Ground Eating Place

Flat

Government Refuse Collection Point

Government Use (not elsewhere specified)#

Hotel (Holiday House only) House (not elsewhere specified)

Institutional Use (not elsewhere specified)#

Market

Place of Recreation, Sports or Culture

Private Club Public Clinic

Public Convenience

Public Transport Terminus or Station

Public Utility Installation #

Public Vehicle Park

(excluding container vehicle)

Religious Institution (not elsewhere specified)#

Residential Institution #

School#

Shop and Services

Social Welfare Facility #

Utility Installation for Private Project

In addition, the following uses are always permitted on the ground floor of a New Territories Exempted House:

Eating Place Library School Shop and Services

(Please see next page)

VILLAGE TYPE DEVELOPMENT (Cont'd)

Planning Intention

The planning intention of this zone is to designate both existing recognized villages and areas of land considered suitable for village expansion. Land within this zone is primarily intended for development of Small Houses by indigenous villagers. It is also intended to concentrate village type development within this zone for a more orderly development pattern, efficient use of land and provision of infrastructures and services. Selected commercial and community uses serving the needs of the villagers and in support of the village development are always permitted on the ground floor of a New Territories Exempted House. Other commercial, community and recreational uses may be permitted on application to the Town Planning Board.

Remarks

- (a) No new development, or addition, alteration and/or modification to or redevelopment of an existing building (except development or redevelopment to those annotated with #) shall result in a total development and/or redevelopment in excess of a maximum building height of 3 storeys (8.23m) or the height of the building which was in existence on the date of the first publication in the Gazette of the notice of the draft development permission area plan, whichever is the greater.
- (b) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.
- (c) Any diversion of streams or filling of pond, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

GREEN BELT

Column 1 Uses always permitted

Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board

Animal Boarding Establishment

Agricultural Use
Barbecue Spot
Government Use (Police Reporting
Centre only)
Nature Reserve
Nature Trail
On-Farm Domestic Structure
Picnic Area
Public Convenience
Tent Camping Ground
Wild Animals Protection Area

Broadcasting, Television and/or Film Studio **Burial Ground** Columbarium (within a Religious Institution or extension of existing Columbarium Crematorium (within a Religious Institution or extension of existing Crematorium only) Field Study/Education/Visitor Centre Government Refuse Collection Point Government Use (not elsewhere specified) Holiday Camp House (other than rebuilding of New Territories Exempted House or replacement of existing domestic building by New Territories Exempted House permitted under the covering Notes) **Petrol Filling Station** Pier Place of Recreation, Sports or Culture **Public Transport Terminus or Station Public Utility Installation**

(Please see next page)

GREEN BELT (Cont'd)

Column 1 Uses always permitted

Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board

(Please see next page)

GREEN BELT (Cont'd)

Planning Intention

The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone.

Remarks

Any diversion of streams, filling of land/pond or excavation of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

CONSERVATION AREA

Column 1 Uses always permitted

Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board

Agricultural Use (other than Plant Nursery) Nature Reserve Nature Trail On-Farm Domestic Structure Picnic Area Wild Animals Protection Area Barbecue Spot
Field Study /Education/Visitor Centre
Government Refuse Collection Point
Government Use (not elsewhere specified)
House (Redevelopment only)
Public Convenience
Public Utility Installation
Radar, Telecommunications Electronic
Microwave Repeater, Television
and/or Radio Transmitter Installation

Planning Intention

This zoning is intended to protect and retain the existing natural landscape, ecological or topographical features of the area for conservation, educational and research purposes and to separate sensitive natural environment such as Country Park from the adverse effects of development.

There is a general presumption against development in this zone. In general, only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted.

(Please see next page)

CONSERVATTION AREA (Cont'd)

Remarks

- (a) No redevelopment, including alteration and/or modification, of an existing house shall result in a total redevelopment in excess of the plot ratio, site coverage and height of the house which was in existence on the date of the first publication in the Gazette of the notice of the draft development permission area plan.
- (b) Any diversion of streams, filling of land/pond or excavation of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes, shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

COASTAL PROTECTION AREA

Column 1 Uses always permitted

Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board

Agricultural Use (other than Plant Nursery) Nature Reserve Nature Trail On-Farm Domestic Structure Wild Animals Protection Area

Field Study/Education/Visitor Centre
Government Use
House (Redevelopment only)
Public Convenience
Public Utility Installation
Radar, Telecommunications Electronic
Microwave Repeater, Television
and/or Radio Transmitter Installation

Planning Intention

This zoning is intended to conserve, protect and retain the natural coastlines and the sensitive coastal natural environment, including attractive geological features, physical landform or area of high landscape, scenic or ecological value, with a minimum of built development. It may also cover areas which serve as natural protection areas sheltering nearby developments against the effects of coastal erosion.

There is a general presumption against development in this zone. In general, only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted.

(Please see next page)

COASTAL PROTECTION AREA (Cont'd)

Remarks

- (a) No redevelopment, including alteration and/or modification, of an existing house shall result in a total redevelopment in excess of the plot ratio, site coverage and height of the house which was in existence on the date of the first publication in the Gazette of the notice of the draft development permission area plan.
- (b) Any diversion of streams, filling of land/pond or excavation of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes, shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

Annex III

DRAFT TO KWA PENG AND PAK TAM AU OUTLINE ZONING PLAN NO. S/NE-TKP/C

EXPLANATORY STATEMENT

DRAFT TO KWA PENG AND PAK TAM AU OUTLINE ZONING PLAN NO. S/NE-TKP/C

EXPLANATORY STATEMENT

CONTENTS		<u>Page</u>	
1.	INTRODUCTION	1	
2.	AUTHORITY FOR THE PLAN AND PRO	OCEDURE 1	
3.	OBJECT OF THE PLAN		
4.	NOTES OF THE PLAN		
5.	THE PLANNING SCHEME AREA	2	
6.	POPULATION	4	
7.	OPPORTUNITIES AND CONSTRAINTS	4	
8.	GENERAL PLANNING INTENTION	7	
9.	LAND-USE ZONINGS		
	9.1 Village Type Development	9	
	9.2 Green Belt	9	
	9.3 Conservation Area	10	
	9.4 Coastal Protection Area	11	
10.	COMMUNICATIONS	12	
11.	UTILITY SERVICES	12	
12.	IMPLEMENTATION	13	
13.	PLANNING CONTROL 13		

DRAFT TO KWA PENG AND PAK TAM AU OUTLINE ZONING PLAN NO. S/NE-TKP/C

(Being a Draft Plan for the Purposes of the Town Planning Ordinance)

EXPLANATORY STATEMENT

Note: For the purposes of the Town Planning Ordinance, this statement shall not be deemed to constitute a part of the Plan.

1. <u>INTRODUCTION</u>

This Explanatory Statement is intended to assist an understanding of the draft To Kwa Peng and Pak Tam Au Outline Zoning Plan (OZP) No. S/NE-TKP/C. It reflects the planning intention and objectives of the Town Planning Board (the Board) for various land-use zonings of the plan.

2. <u>AUTHORITY FOR THE PLAN AND PROCEDURE</u>

- 2.1 On 13 December 2010, under the power delegated by the Chief Executive, the Secretary for Development directed the Board, under section 3(1)(b) of the Town Planning Ordinance (the Ordinance), to prepare a Development Permission Area (DPA) Plan for the To Kwa Peng and Pak Tam Au area.
- 2.2 On 7 January 2011, the draft To Kwa Peng and Pak Tam Au DPA Plan No. DPA/NE-TKP/1 was exhibited for public inspection under section 5 of the Ordinance. During the two-month exhibition period, 206 representations were received. On 18 March 2011, the Board published the representations for public comment and in the first three weeks of the publication period, 227 comments were received. After giving consideration to the representations and comments on 15 July 2011, the Board decided not to propose any amendment to the draft DPA plan to meet the representations.
- 2.3 On 7 February 2012, the Chief Executive in Council (CE in C), under section 9(1)(a) of the Ordinance, approved the draft To Kwa Peng and Pak Tam Au DPA Plan, which was subsequently renumbered as DPA/NE-TKP/2. On 17 February 2012, the approved To Kwa Peng and Pak Tam Au DPA Plan No. DPA/NE-TKP/2 was exhibited for public inspection under section 9(5) of the Ordinance.
- 2.4 On 30 January 2013, under the power delegated by the Chief Executive, the Secretary for Development directed the Board, under section 3(1)(a) of the Ordinance, to prepare an OZP to cover the To Kwa Peng and Pak Tam Au area.
- 2.5 On XX XXXX 2013, the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/B (the Plan) was exhibited for public inspection under section 5 of the Ordinance.

- 2 - <u>S/NE-TKP/C</u>

3. OBJECT OF THE PLAN

- 3.1 The object of the Plan is to indicate the broad land-use zonings for the area of To Kwa Peng and Pak Tam Au so that development and redevelopment within the area of To Kwa Peng and Pak Tam Au can be put under statutory planning control. It also provides the planning framework for preparing more detailed non-statutory plans which form the basis for public works planning and site reservation for various uses.
- 3.2 The Plan is to illustrate the broad principles of development and planning control only. It is a small-scale plan and the road alignments and boundaries between the land-use zones may be subject to minor alterations as detailed planning proceeds.

4. NOTES OF THE PLAN

- 4.1 Attached to the Plan is a set of Notes which shows the types of uses or developments which are always permitted within the Planning Scheme Area and in particular zones and which may be permitted by the Board, with or without conditions, on application. The provision for application for planning permission under section 16 of the Ordinance allows greater flexibility in land-use planning and control of development to meet the changing needs.
- 4.2 For the guidance of the general public, a set of definitions that explains some of the terms used in the Notes may be obtained from the Technical Services Division of the Planning Department and can be downloaded from the Board's website at http://www.info.gov.hk/tpb/.

5. THE PLANNING SCHEME AREA

5.1 The Planning Scheme Area (the Area), which comprises two sub-areas, namely the To Kwa Peng area (about 9.77 hectares) and the Pak Tam Au area (about 15.19 hectares), covers a total area of about 24.96 hectares. The Area is encircled by the Sai Kung East Country Park in the east and Pak Tam Road and Sai Kung West Country Park in the west. The boundary of the Area is shown by a heavy broken line on the Plan.

5.2 To Kwa Peng

- 5.2.1 The To Kwa Peng area is located along the natural coast overlooking Ko Tong Hau at the north-western edge of the Sai Kung East Country Park about 12 km to the north-east of Sai Kung Town. It is accessible by a walking trail off Pak Tam Road or along the coast from the west and by marine access off a small pier fronting Ko Tong Hau and Long Harbour.
- 5.2.2 The To Kwa Peng area is rural in character comprising mainly fallow agricultural land surrounded by shrubs and woodland. While To Kwa Peng is a recognized village, the area is basically uninhabited with some

- 3 - <u>S/NE-TKP/C</u>

ruins and a row of about 7 village houses in dilapidated condition. To the west of these houses is a stretch of fallow agricultural land. The surrounding areas have some signs of previous excavation and site formation works but the area has regenerated with scattered wild grasses and shrubs. There are graves located to the south of the hill along the southern boundary of the area.

5.2.3 There is a natural stream near the western boundary of the To Kwa Peng area flowing from south to north towards Ko Tong Hau. Estuarine mangrove and mudflat habitats are found along the coast fronting Ko Tong Hau. According to the Agriculture, Fisheries and Conservation Department, uncommon species of mangroves, *Heritiera littoralis* (銀葉樹) and *Lumnitzera racemosa* (欖季) and seagrass, *Halophila minor* (小喜鹽草) are found in this mudflat.

5.3 Pak Tam Au

- 5.3.1 The Pak Tam Au area, which falls entirely within the upper indirect water gathering ground, is located along Pak Tam Road at the western edge of the Sai Kung East Country Park about 500m to the south of the To Kwa Peng area. It is accessible by vehicle via Pak Tam Road and by walking trails connected to the Sai Kung East Country Park. There are bus and mini bus routes operating between Sai Kung Public Pier and Pak Tam Au.
- 5.3.2 With a scenic setting, the area is rural in character comprising mainly fallow agricultural land at the centre surrounded by shrubs and woodland. Pak Tam Au is a recognized village with a small cluster of village houses up to three storeys in height in fair to good condition. A short local track connects these houses with Pak Tam Road.
- 5.3.3 The central part of the area comprises pockets of terraced fallow agricultural land overgrown with grass and shrubs surrounded to its north and south by slopes covered with woodland and dense natural vegetation. The woodland forms part of the well-established vegetation in the Sai Kung East Country Park. Some graves are found at the small hill at the south-western corner of the area. There is a partially trained stream running across the central portion of the area from the slope in the east towards the west.
- 5.3.4 The tranquil rural character and woodlands of Pak Tam Au has a high landscape value which complements the overall natural quality and the landscape beauty of the surrounding Sai Kung East and Sai Kung West Country Parks. The area, with a section of Maclehose Trail and Pak Tam Country Trail running across its northern and southern regions, is a popular spot for hikers.

- 4 - <u>S/NE-TKP/C</u>

6. **POPULATION**

According to the 2011 Population Census, the total population of the Area was below 50 persons. It is expected that the total planned population of the Area would be 740 persons mainly attributed to the village expansion.

7. OPPORTUNITIES AND CONSTRAINTS

7.1 Opportunities

7.1.1 Conservation and Natural Landscape

Amid the Sai Kung East Country Park, the To Kwa Peng area and the Pak Tam Au area have high scenic and landscape value forming part of the wider natural system of the Sai Kung countryside comprising a diversity of woodland, hillsides shrubland, abandoned agricultural land, stream, freshwater marsh, and mangrove, which support a diversity of flora and fauna. Due to high quality scenery and landscape along the section of Maclehose Trail and Pak Tam Country Trail at the Pak Tam Au area, and the location of the To Kwa Peng area along the waterfront overlooking Ko Tong Hau, the natural environment of the Area is worthy of conservation while the scale of the village development should be compatible with the rural setting and surrounding landscape.

7.1.2 Tourism Potential

- 7.1.2.1 The To Kwa Peng area is located to south of Wong Shek Pier connected by a hiking trail. There is a bus terminus at Wong Shek Pier which is both a popular tourist destination and a transport connection point between Hong Kong's urban area and outlying places (such as Tap Mun, Wan Tsai and Chek Keng, etc.). The Jockey Club Wong Shek Water Sports Centre, south of Wong Shek Pier, is popular for various types of waters sports activities, such as sailing, windsurfing and canoeing.
- 7.1.2.2 The Pak Tam Au area, with a section of Maclehose Trail and Pak Tam Country Trail running across its northern and southern regions, is a popular spot for hikers as it is located between Chek Keng and Cheung Sheung connected by Maclehose Trail. Also, the area is connected to the Lady Maclehose Holiday Village located to its further south by Pak Tam Road or Pak Tam Country Trail.

- 5 - <u>S/NE-TKP/C</u>

7.2 <u>Constraints</u>

7.2.1 <u>Transportation (Road Access)</u>

- 7.2.1.1 The To Kwa Peng area is located in a remote area without vehicular access. Currently, it is only accessible by a footpath off Pak Tam Road at a distance of over 700 m through Sai Kung East Country Park or by sea at the small pier at the north of the area.
- 7.2.1.2 The Pak Tam Au area is accessible via Pak Tam Road and walking trails connecting to the Country Park to the south and north of the area. At present, Pak Tam Road is a restricted road and vehicles entering it have to apply permits from relevant departments.

7.2.2 Geotechnical

Land to the south, east and west of the To Kwa Peng area and land to the east, northwest and south of the Pak Tam Au area are bounded by steep natural hillslopes, and may be affected by potential natural terrain landslide hazards. For new development in these areas, especially those located near the boundary, natural terrain hazard study would be required and suitable mitigation measures should be provided, if necessary, as part of the development or re-development.

7.2.3 Ecological Significance

- 7.2.3.1 The Area forms an integral part of the natural system of the natural woodlands in the adjoining Sai Kung East Country Park with a wide spectrum of natural habitats including mature woodland, hillside shrubland, fallow agricultural land and streamcourses. Estuarine mangrove and mudflat habitats are also found in the To Kwa Peng area along the coast fronting Ko Tong Hau.
- To Kwa Peng is mainly covered by wooded areas, bare ground 7.2.3.2 and village houses. The wooded areas adjacent to the Sai Kung Country Park are relatively undisturbed ecologically-linked to the natural habitats therein. The fung shui woodland behind the village remains largely intact with a dense canopy. A high diversity of flora species (96 species), including the protected Aquilaria sinensis (土沉香) and Pavetta hongkongensis (香港大沙葉), has been recorded. Aquilaria sinensis (土沉香) has also been recorded in the woodland at the knoll northeast of the fung shui woodland. Though most of the species recorded in the subject site are common and widespread, To Kwa Peng has been identified as a butterfly hotspot with over 40% of the local species recorded, including the very rare Choaspes hemixanthus (半黃綠弄蝶),

- 6 - <u>S/NE-TKP/C</u>

and the rare Zographetus satwa (黃裳腫脈弄蝶) and Abraximorpha davidii (白弄蝶). The natural mudflat on the coast front supports dense mangrove stands comprising seven species of mangroves, including the uncommon Heritiera littoralis (銀葉樹) and Lumnitzera racemosa (欖李). Two seagrass species, Halophila minor (小喜鹽草) and H. ovalis (喜鹽草) have also been recorded at the mudflat. The area is one of the most species-rich sites in Hong Kong with respect to mangrove fauna, with a total of 52 species recorded.

- 7.2.3.3 In addition, some wetland plants, such as *Kandelia canel* (水 筆仔), *Heritiera littoralis* (銀葉樹), *Glochidion zeylanicum* (香港算盤子), *Excoecaria agallocha* (海漆) and *Cerbera manghas* (海芒果), etc., are found along the east coast of To Kwa Peng and along two sides of the existing footpath.
- 7.2.3.4 Pak Tam Au is mainly covered by wooded areas, bare ground and village houses. A partially disturbed *fung shui* woodland is found behind the village with a moderately high diversity of flora species (62 species), including the protected *Pavetta hongkongensis* (香港大沙葉). The well-wooded periphery of the area is ecologically-linked to the wide stretch of natural vegetation in the Sai Kung East Country Park though most of the fauna recorded therein are common and widespread species. According to the records of the Kadoorie Farm and Botanic Garden Corporation, there is a freshwater marsh with protected and locally endangered orchid, *Liparis ferruginea* (鏽色羊耳蒜) to the east of the *fung shui* woods.

7.2.4 Landscape Character

7.2.4.1 With reference to the Landscape Value Mapping of Hong Kong (2005), the To Kwa Peng area is of rural landscape character which comprises mainly fallow agricultural land and surrounded by shrubs and woodland. Mudflats and significant mangroves define the larger northern cove of To Kwa Peng. A natural stream near the western boundary of the To Kwa Peng area is flowing from south to north towards Ko Tong Hau. There is a recognized small village with few small houses and fallow agricultural lands near to the hillsides slope toe but without direct access road to connect. The To Kwa Peng area is rated with "High (qualified)" landscape value that the unique coastal landscape creates an extreme shelter surrounded with vegetated knolls. However, some areas have already disturbed by vegetation clearance, which has regenerated with wild grasses and shrubs. Due to the high landscape sensitivity of the area and its remoteness from existing roads and other development, any large scale development of the area should be avoided.

- 7 - <u>S/NE-TKP/C</u>

7.2.4.2 The enclosed, tranquil and rural character and woodlands of the Pak Tam Au area has a high landscape value which complements the overall natural quality and the landscape beauty of the surrounding Sai Kung East and Sai Kung West Country Parks. Vegetation comprises woodland and scrub on lower valley sides and the woodland forms part of well-established vegetation in the Sai Kung East Country Park. The recognized Pak Tam Au village comprises pockets of terraced fallow agricultural lands surrounded by the vegetated slope with some areas already disturbed by vegetation The Pak Tam Au area is rated with "High" clearance. landscape value. The landscape comprises a juxtaposition of distinct landscape character areas. Due to the high landscape sensitivity and the topography of the area and that it is away from other development, any large scale development of the area should be avoided.

7.2.5 Burial Grounds

A large piece of burial grounds found at the southwestern part of the Pak Tam Au area is not suitable for any development.

7.2.6 Water Gathering Ground

The whole of the Pak Tam Au area is within the upper indirect water gathering ground (WGG). To prevent contamination of waters which are designated for abstraction for potable water supply, any proposed development that will result in a material increase in pollution effect will not be encouraged.

7.2.7 Sewerage

There is no existing public sewer nor any committed/ planned sewerage project planned for the Area. At present, on-site discharge system such as septic tanks and soakaway pits are generally used in traditional villages. They would only satisfy the requirements of individual lots. Any increase in population or number of visitors to the Area or further recreation/ residential developments will require additional facilities.

7.2.8 Infrastructure and Utility Services

The Area is provided with electricity and telephone services. Potable water supply has been provided to the existing facilities and villagers of the Area.

8. GENERAL PLANNING INTENTION

8.1 The Area forms an integral part of the natural system of the natural woodlands in the adjoining Sai Kung East Country Park with a wide spectrum of natural habitats including, *inter alia*, mature woodland, hillside shrubland, streamcourses, estuarine mangrove and mudflat, etc., which support some

- 8 - <u>S/NE-TKP/C</u>

rare/uncommon flora and fauna of the Area and should be preserved and protected. The general planning intention of the Area is to protect its high conservation and landscape value which complements the overall naturalness and the landscape beauty of the surrounding Sai Kung East and Sai Kung West Country Parks.

8.2 Apart from the environmental and ecological considerations, development in the Area is constrained by limited transport and infrastructural provisions. It is also intended to consolidate village so as to avoid undesirable disturbances to the natural environment and overtaxing the limited infrastructure in the Area.

9. <u>LAND-USE ZONINGS</u>

- 9.1 "Village Type Development" ("V"): Total Area 5.34 ha
 - 9.1.1 The planning intention of this zone is to designate both existing recognized villages and areas of land considered suitable for village expansion. Land within this zone is primarily intended for development of Small Houses by indigenous villagers. It is also intended to concentrate village type development within this zone for a more orderly development pattern, efficient use of land and provision of infrastructures and services. Selected commercial and community uses serving the needs of the villagers and in support of the village development are always permitted on the ground floor of a New Territories Exempted House. Other commercial, community and recreational uses may be permitted on application to the Town Planning Board.
 - 9.1.2 The boundaries of the "V" zone are drawn up having regard to the village 'environs', the number of outstanding Small House applications, Small House demand forecast, local topography and site constraints. Areas of difficult terrain, dense vegetation, stream courses and burial grounds have been avoided as far as possible. To Kwa Peng Village and Pak Tam Au Village are two recognized villages in the Area.
 - 9.1.3 No new development, or addition alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum building height of 3 storeys (8.23 m) or the height of the building which was in existence on the date of first publication in the Gazette of the notice of the draft DPA plan, whichever is the greater. Application for minor relaxation of these restrictions would be considered by the Board based on individual merits, taking into account site constraints, innovative architectural design and planning merits that would enhance the amenity of the locality.
 - 9.1.4 Some areas zoned "V" are overlooked by steep natural hillsides and may be affected by potential natural terrain landslide hazards. For future development in these areas, the developer(s) may be required to carry

S/NE-TKP/C

- 9 -

- out natural terrain hazard study and provide suitable hazard mitigation measures, if found necessary, as part of the development.
- 9.1.5 In accordance with the Environmental, Transport and Works Bureau's Technical Circular (Works) No. 5/2005, under the current administrative practice, development proposals/submissions that may affect natural streams / rivers, the approving / processing authorities at various stages of the development should consult and collate comments from the Agriculture, Fisheries and Conservation Department and relevant authorities and incorporate relevant comments/advice as conditions of approval wherever possible. Accordingly. Lands Department when processing Small House grant and applications in close proximity to existing stream courses, should consult concerned departments including the Agriculture, Fisheries and Conservation Department and the Planning Department to ensure that all relevant departments would have adequate opportunity to review and comment on the applications.
- 9.1.6 As diversion of streams or filling of pond may cause adverse drainage impacts on the adjacent areas and adverse impacts on the natural environment, permission from the Board is required for such activities.
- 9.1.7 There is neither existing nor proposed public sewer in the Area. For Small House development, the design and construction of such systems need to comply with relevant standards and regulations, such as Environmental Protection Department (EPD)'s Practice Note for Professional Person (ProPECC PN) 5/93, for the protection of the water quality of the Area.
- 9.1.8 In addition, the Pak Tam Au area also falls entirely within the upper indirect water gathering ground. For any village type development within the "V" zone, it should be demonstrated that the water quality within water gathering ground will not be affected by the proposals. In general, the use of septic tank and soakaway systems for sewage treatment and disposal is considered as an unacceptable means for new village developments located in water gathering grounds. There should be demonstrably effective means (such as proper waste water treatment plant) to ensure that the effluent water quality is acceptable to concerned government departments.

9.2 "Green Belt" ("GB"): Total Area 1.79 ha

9.2.1 The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone.

- 10 - <u>S/NE-TKP/C</u>

- 9.2.2 The sites zoned "GB" include the vegetated hillslopes, natural stream and woodland adjoining the west of the "V" zone of the existing main village cluster of To Kwa Peng and the vegetated hillslopes and woodland at the southwest part of Pak Tam Au. These "GB" zones mainly comprise relatively disturbed, young woodland and shrubby grassland developed from abandoned agricultural land, which provide a buffer between the development and conservation areas or Country Park area.
- 9.2.3 There is a traditional burial ground at the southwestern part of the Pak Tam Au area which is within this zone. It has been in existence for many years, which are considered as an existing use and intended for burial places of deceased indigenous villagers in the area. To respect the local ritual and tradition, burial activities within this zone are generally tolerated
- 9.2.4 There is a general presumption against development within this zone. Development in this zone will be strictly controlled. Development proposals will be considered by the Board on individual merits taking into account the relevant Town Planning Board Guidelines.
- 9.2.5 As diversion of streams, filling of land/pond or excavation of land may cause adverse drainage impacts on the adjacent areas and adverse impacts on the natural environment, permission from the Board is required for such activities.

9.3 "Conservation Area" ("CA"): Total Area 16.75 ha

9.3.1 This zoning is intended to protect and retain the existing natural landscape, ecological or topographical features of the area for conservation, educational and research purposes and to separate sensitive natural environment such as Country Park from the adverse effects of development. There is a general presumption against development in this zone. In general, only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted.

- 11 - <u>S/NE-TKP/C</u>

- The "CA" zoning, which mainly comprises relatively undisturbed 9.3.2 native woodland ecologically-linked to the natural habitats in the adjacent Sai Kung East Country Park, covers the fung shui woods behind the villages and the adjoining wooded areas. In To Kwa Peng, a high diversity of flora species (96 species), including the protected Aquilaria sinensis (十沉香) and Pavetta hongkongensis (香港大沙葉), has been recorded. Aquilaria sinensis (十沉香) has also been recorded in the woodland at the knoll northeast of the fung shui woodland. Though most of the species recorded in the subject site are common and widespread, To Kwa Peng has been identified as a butterfly hotspot with over 40% of the local species recorded, including the very rare Choaspes hemixanthus (半黃綠弄蝶), and the rare Zographetus satwa (黃裳腫脈弄蝶) and Abraximorpha davidii (白弄蝶). For Pak Tam Au, a partially disturbed fung shui woodland is found behind the village with a moderately high diversity of flora species (62 species), including the protected Pavetta hongkongensis (香港大沙葉). There is a freshwater marsh with protected and locally endangered orchid, Liparis ferruginea (鏽色羊耳蒜) to the east of the fung shui wood.
- 9.3.3 New residential development is not permitted under this zone. Redevelopment of existing houses may be permitted on application to the Board. The redevelopment of existing houses shall not result in a total redevelopment in excess of the plot ratio, site coverage and height of the house which was in existence on the date of the first publication of the DPA Plan.
- 9.3.4 Diversion of streams, filling of land/pond or excavation of land may cause adverse drainage impacts on adjacent areas and adverse impacts on the natural environment. In view of the conservation value of the area within this zone, permission from the Board is required for such activities.

9.4 "Coastal Protection Area" ("CPA"): Total Area 1.08 ha

9.4.1 This zoning is intended to conserve, protect and retain the natural coastlines and the sensitive coastal natural environment, including attractive geological features, physical landform or area of high landscape, scenic or ecological value, with a minimum of built development. It may also cover areas which serve as natural protection areas sheltering nearby developments against the effects of coastal erosion. There is a general presumption against development in this zone. In general, only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted.

- 12 - <u>S/NE-TKP/C</u>

- 9.4.2 This zone covers the coastal areas of To Kwa Peng along Ko Tong Hau, where estuarine mangrove and mudflat habitats locate. The natural mudflat on the coast is one of the most species-rich sites in Hong Kong with respect to mangrove fauna. Some uncommon species of mangroves, Heritiera littoralis(銀葉樹) and Lumnitzera racemosa (欖李) and seagrass, Halophila minor (小喜鹽草) are found in this mudflat. Some wetland plants, such as Kandelia canel (水筆仔), Heritiera littoralis (銀葉樹), Glochidion zeylanicum (香港算盤子), Excoecaria agallocha (海漆) and Cerbera manghas (海芒果), etc., are found along the east coast of To Kwa Peng and along two sides of the existing footpath.
- 9.4.3 New residential development is not permitted under this zone. Redevelopment of existing houses may be permitted on application to the Board. The redevelopment of existing houses shall not result in a total redevelopment in excess of the plot ratio, site coverage and height of the house which was in existence on the date of the first publication of the DPA Plan.
- 9.4.4 Diversion of streams, filling of land/pond or excavation of land may cause adverse drainage impacts on adjacent areas and adverse impacts on the natural environment. In view of the conservation value of the area within this zone, permission from the Board is required for such activities.

10. COMMUNICATIONS

10.1 Road/Transport Network

- 10.1.1 The To Kwa Peng area is not served by any vehicular access and is only accessible by a walking trail connecting to Pak tam Road and along the coast to the west towards Wong Shek Pier. There is marine access off a small pier located at the north of the area. Visitors often charter small vessels off Wong Shek Pier to land at this pier.
- 10.1.2 The Pak Tam Au area is accessible via Pak Tam Road and walking trails connecting to the Country Park to the south and north of the area.

11. UTILITY SERVICES

The Area is provided with electricity and telephone services. Potable water supply has been provided to the existing facilities and villagers of the areas. There are no sewerage and drainage systems.

- 13 - <u>S/NE-TKP/C</u>

12. IMPLEMENTATION

12.1 The Plan provides a broad land-use framework for development control and implementation of planning proposals for the Area. More detailed plans will be prepared as a basis for public works planning and private developments.

- 12.2 At present there is no overall programme for the provision of infrastructure within the Area. The implementation process will be gradual and may stretch over a long period of time depending on the availability of resources. It will be undertaken through the participation of both the public and private sectors.
- 12.3 Notwithstanding the above, minor improvement works, e.g. access improvement and laying of utility services will be implemented through the Public Works Programme and the Rural Public Works as and when resources are available. Private developments will be effected principally through private sector initiatives to develop or redevelop their properties in accordance with the zoned uses indicated on the Plan, provided that their proposals meet Government requirements.

13. PLANNING CONTROL

- 13.1 The types of permitted developments and uses on land within the Area are listed in the Notes to the Plan. Unless otherwise specified, all building, engineering and other operations incidental to and all uses directly related and ancillary to the permitted developments and uses within the same zone are always permitted and no separate permission is required.
- 13.2 Uses of land or building which were in existence immediately before the first publication in the Gazette of the notice of the draft DPA Plan and which are not in compliance with the terms of the Plan may have adverse impacts on the environment, drainage and traffic of the Area. Although no action is required to make such use conform to this Plan, any material change of such use or any other development (except minor alteration and/or modification to the development of the land or building in respect of such use which is always permitted) must be always permitted in terms of the Plan or, if permission is required, in accordance with a permission granted by the Board. The Board will consider these applications on their individual merits. Those alteration and/or modification works which may lead to an environmental improvement or upgrading to the Area may be considered favourably by the Board.
- 13.3 Planning applications to the Board will be assessed on individual merits. In general, the Board, in considering the planning applications, will take into account all relevant planning considerations including guidelines published by the Board. Guidelines published by the Board are available from the Board's website, the Secretariat of the Board and the Technical Services Division of the Planning Department. Application forms and Guidance Notes for planning applications can be downloaded from the Board's website, and are available from the Secretariat of the Board, and the Technical Services Division and the relevant District Planning Office of the Planning Department. Applications should be supported by such materials as the Board thinks appropriate to enable it to consider the applications.

- 14 - <u>S/NE-TKP/C</u>

Any development, other than those referred to in paragraph 13.1 above or in conformity with this Plan or with the permission of the Board, undertaken or continued on land included in this Plan on or after the date of the first publication in the Gazette of the Notice of the draft DPA Plan may be subject to enforcement proceedings under the Ordinance. Any diversion of streams, filling of land/pond and excavation of land in the relevant zones on or after the date of the first publication in the Gazette of the Notice of the draft DPA Plan without permission from the Board may also be subject to enforcement proceedings. Moreover, there is a presumption against filling of ponds for temporary land uses/developments in conservation-related zonings, such as "CA".

TOWN PLANNING BOARD XXXX 2013

Extract of Minutes of the Town Planning Board Meeting

held on 4.10.2013

Sha Tin, Tai Po and North

Agenda Item 7

[Open Meeting (Presentation and Question Session only)]

Draft To Kwa Peng and Pak Tam Au Outline Zoning Plan No. S/NE-TKP/B Preliminary Consideration of a New Plan (TPB Paper No. 9441)η

[The meeting was conducted in Cantonese.]

213. The following representatives of Planning Department (PlanD) was

invited to the meeting at this point:

Mr C.K. Soh

- District Planning Officer/Sha Tin, North and

Tai Po (DPO/STN), PlanD

Mr David Ng

Senior Town Planner/ New Plans, PlanD

214. The Chairman extended a welcome and invited PlanD to brief Members on the Paper.

215. With the aid of a powerpoint presentation, Mr David Ng made the following main points as detailed in the Paper:

Background

- (a) on 7.1.2011, the draft To Kwa Peng and Pak Tam Au DPA Plan No. DPA/NE-TKP/1 (the DPA Plan) was exhibited for public inspection under section 5 of the Town Planning Ordinance (the Ordinance). After completion of the plan-making process, the DPA Plan was approved by Chief Executive in Council (CE in C) on 7.2.2012;
- (b) pursuant to section 20(5) of the Ordinance, the DPA Plan was effective for a period of 3 years until 7.1.2014. As such, an OZP had to be prepared to replace the DPA Plan in order to maintain statutory planning control over the To Kwa Peng and Pak Tam Au area (the Area) upon expiry of the DPA Plan;
- (c) on 30.1.2013, under the power delegated by the Chief Executive, the Secretary for Development directed the Board, under section 3(1)(a) of the Ordinance, to prepare an OZP to cover the Area;

<u>Proposals Put Forward during the Board's Consideration of the Representations on the DPA Plan on 15.7.2011</u>

(d) environmental concern groups suggested that the Area or the

ecologically and environmentally sensitive areas such as the coastal area and mangrove community, fung shui woodland and secondary forest and natural stream be designated for conservation purpose including "Coastal Protection Area" ("CPA"), "Conservation Area" ("CA") and "Green Belt" ("GB") zones;

- (e) local villagers' proposals for Pak Tam Au were:
 - (i) the central and north-western parts be designated as "Village Type Development" zone ("V");
 - (ii) the area near the hill to the north be designated as "Government, Institution or Community" ("G/IC") for the development of community centre for clubhouse and recreational purposes; and
 - (iii) the southern part be designated as "Agriculture" zone ("AGR") for agricultural rehabilitation by the overseas returnees;
- (f) while the Board decided not to meet the representations and not to propose any amendment to the draft DPA Plan, it was agreed that there was a need to strike a balance between environmental conservation and sustainable development of the Area which would be taken into account in the preparation of the future OZP;

The Planning Scheme Area

- (g) the Area, which comprised the To Kwa Peng area (about 9.77 hectares) and Pak Tam Au area (about 15.19 hectares), covered a total area of about 24.96 hectares;
- (h) the Area was encircled by the Sai Kung East Country Park in the east and Pak Tam Road and Sai Kung West Country Park in the west;

To Kwa Peng

- (i) the To Kwa Peng area was characterised as follows:
 - (i) it was located along the natural coast overlooking Ko Tong Hau at the north-western edge of the Sai Kung East Country Park about 12 km to the north-east of Sai Kung Town. It was accessible by a walking trail off Pak Tam Road or along the coast from the west and by marine access off a small pier fronting Ko Tong Hau and Long Harbour;
 - (ii) the To Kwa Peng area was rural in character comprising mainly fallow agricultural land surrounded by shrubs and woodland. While To Kwa Peng was a recognized village, the area was basically uninhabited with some ruins and a row of about seven village houses in dilapidated condition. To the west of these houses was a stretch of fallow agricultural land; and
 - (iii) there was a natural stream near the western boundary of the To Kwa Peng area flowing from south to north towards Ko Tong Hau. Estuarine mangrove and mudflat habitats were found along the coast fronting Ko Tong Hau. According to the Agriculture, Fisheries and Conservation Department (AFCD), uncommon species of mangroves, Heritiera littoralis (銀葉樹) and Lumnitzera racemosa (欖李) and seagrass, Halophila minor (小喜鹽草) were found in this mudflat;

Pak Tam Au

- (j) the Pak Tam Au area was characterised as follows:
 - (i) the Pak Tam Au area was located along Pak Tam Road at the western edge of the Sai Kung East Country Park about 500m to

the south of the To Kwa Peng area. It was accessible by vehicle via Pak Tam Road and by walking trails connected to the Sai Kung East Country Park. The Pak Tam Au area fell entirely within an upper indirect water gathering ground (WGG);

- (ii) the area was rural in character comprising mainly fallow agricultural land at the centre surrounded by shrubs and woodland. Pak Tam Au was a recognized village with about 12 village houses up to three storeys in height in fair to good conditions. A short local track connected these houses with Pak Tam Road;
- (iii) the central part of the area comprised pockets of terraced fallow agricultural land overgrown with grass and shrubs surrounded to its north and south by slopes covered with woodland and dense natural vegetation. The woodland formed part of the well-established vegetation in the Sai Kung East Country Park. Some graves were found at the small hill at the south-western corner of the area. There was a partially trained stream running across the central portion of the area from the slope in the east towards the west; and
- (iv) the area, with a section of Maclehose Trail and Pak Tam Country Trail running across its northern and southern regions, was a popular spot for hikers;

Development Proposals Received in the Course of Preparation of the OZP

(k) since the gazettal of the draft DPA Plan on 7.1.2011, and in the course of preparing the OZP, two specific planning proposals and 22 planning applications had been received. Also, some views/proposals were received from informal meetings/site visits with concerned parties.

Specific planning proposals

- (IIR) submitted a proposal on the "V" zone boundaries. He proposed to zone all the private land within the village 'environs' ('VE') and part of the private land beyond the 'VE' as "V";
- (m) for Pak Tam Au, AF Architecture & Planning Consultants Ltd submitted development planning and ecological conservation proposals, which comprised a total of 76 Small Houses, open space with an eating place, a youth hostel, an organic hobby farm, and an ancillary car park, etc., with an access road/ emergency vehicular access (EVA), two communal sewage treatment plants and landscape planting;

<u>Views/Proposals from Informal Meetings/Site Visits with Concerned</u> <u>Parties</u>

- (n) the main views and proposals were summarised below:
 - the local villagers were of the view that there was a need to strike a balance between development and conservation; and adequate land should be designated to meet their Small House demand;
 - (ii) environmental concern groups suggested that the OZP should focus on conservation and the proposed "V" zone should be confined to the existing ruins of structures and its surrounding areas while the ecologically sensitive areas should be preserved and protected. Also, conservation zonings such as "CA" and "CPA" were preferred for the secondary woodland extending from the country parks, natural streams and coastal areas including the mangrove/freshwater marshes thereat. Adequate

buffer zones should also be provided on both sides of natural streams;

- (iii) Kadoorie Farm & Botanic Garden Corporation (KFBG) had also provided information on the important habitats in the Area. In this regard, AFCD had no comment on the information on the rare and protected species provided by KFBG as the information was based on KFBG's previous record; and
- (iv) the planning assessments of the two specific proposals were at Appendices V and VI of the Paper respectively;
- (o) in preparing the draft OZP and delineating the various zones such as "CPA", "CA", "GB", "V", etc., the above views had been taken into account;

Planning Applications Received

- (p) a total of 22 planning applications in the Area were received, with 15 for NTEH (Small House) and seven for rebuilding of NTEH (non-Small House). Twelve applications were subsequently withdrawn. For those 10 unwithdrawn planning applications:
 - (i) one planning application (No. A/DPA/NE-TKP/1) for three Small House developments at the Pak Tam Au area was approved with conditions in July 2011 mainly on the ground that there were special circumstances of the case, where Certificate of Exemption (C of E) for the three Small Houses were issued six years ago, and concerned government departments, including the Water Supplies Department (WSD) and the Environmental Protection Department (EPD) had no objection to the application subject to imposing relevant approval conditions; and

(ii) six planning applications for Small Houses in Pak Tam Au and three planning applications for Small Houses in To Kwa Peng were rejected mainly on, *inter alias*, on grounds of adverse environmental impacts on the surrounding areas;

Environmental and Conservation Considerations

To Kwa Peng

"Conservation Area" ("CA")

- according to AFCD, To Kwa Peng was mainly covered by wooded (q) areas, bare ground and village houses. The wooded areas adjacent to the Sai Kung East Country Park were relatively undisturbed and ecologically-linked to the natural habitats therein. The fung shui woodland behind the village remained largely intact with a dense canopy. A high diversity of flora species (96 species), including the protected Aquilaria sinensis (土沉香) and Pavetta hongkongensis (香港大沙葉), had been recorded. sinensis (土沉香) had also been recorded in the woodland at the knoll northeast of the fung shui woodland. Though most of the species recorded in the subject site were common and widespread, To Kwa Peng had been identified as a butterfly hotspot with over 40% of the local species recorded, including the very rare Choaspes hemixanthus (半黃綠弄蝶), and the rare Zographetus satwa (黃裳腫 脈弄蝶) and Abraximorpha davidii (白弄蝶);
- (r) land use proposal AFCD recommended that the "CA" zoning should not only cover the *fung shui* woodland, but also the woodland on the eastern side of the area and the woodland adjoining the Sai Kung East Country Park along the southern and western boundary of the area. This "CA" zone mainly consisted of relatively undisturbed native woodland adjacent to the Country Park;

"Coastal Protection Area" ("CPA")

- for the coastal areas, AFCD commented that the natural mudflat on (s) the coast supported dense mangrove stands comprising seven species of mangroves, including the uncommon Heritiera littoralis (銀葉樹) and Lumnitzera racemosa (欖李). Two seagrass species, Halophila minor (小喜鹽草) and H. ovalis (喜鹽草) had also been recorded at the mudflat. The area was one of the most species-rich sites in Hong Kong with respect to mangrove fauna, with a total of 52 species recorded. The Chief Town Planner/Urban Design and Landscape (CTP/UD&L) advised that some wetland plants, such as Kandelia canel (水筆仔), Heritiera littoralis (銀葉樹), Glochidion zeylanicum (香港算盤子), etc., were found along the eastern coast of To Kwa Peng and along two sides of the existing footpath. According to the Landscape Value Mapping of Hong Kong (2005), the To Kwa Peng area was of a high landscape value of rural character with scenic setting;
- (t) land use proposal the coastal areas along Ko Tong Hau was proposed to be zoned "CPA" in order to conserve the coastal habitats and provide visual buffer to the scenic coastline. The "CPA" zone primarily consisted of the natural coast, estuarine, mangrove, backshore vegetation and the existing pier, etc., with the objective to comprehensively preserve the coastal landscape and minimize the adverse impact from village development. Two existing village houses were located in the middle of the coastal area near the pier, future proposed redevelopment of these houses would require planning permission from the Board;

"Green Belt" ("GB")

(u) the west of the existing village cluster of To Kwa Peng mainly comprised relatively disturbed, young woodland and shrubby

grassland developed from abandoned agricultural land. A natural stream passed through this woodland/shrubby grassland from the south to the semi-enclosed coast of Ko Tong Hau with limited tidal flush in the north where abundant mangroves and backshore vegetation were found;

- (v) AFCD commented that maintaining a buffer between the natural stream and the village was desirable from the nature conservation point of view. On the landscape aspect, CTP/UD&L advised that the natural stream was a significant landscape resource, particularly the estuarine area of this stream that supported mangroves and adjacent coastal plants and provided high coastal landscape scenery value;
- (w) land use proposal it was proposed that the natural stream and the adjoining areas mainly occupied by shrubland and young woodland be designated as "GB" so as to provide a buffer between the village development/ expansion and conservation areas or Country Park;

Pak Tam Au

"Conservation Area" ("CA")

- (x) according to AFCD, the Pak Tam Au area was mainly covered by wooded areas, bare ground and village houses. A partially disturbed *fung shui* woodland was found behind the village with a moderately high diversity of flora species (62 species), including the protected *Pavetta hongkongensis* (香港大沙葉). The well-wooded periphery of the area was ecologically-linked to the wide stretch of natural vegetation in the Sai Kung East Country Park though most of the fauna recorded therein were common and widespread species;
- (y) land use proposal AFCD recommended "CA" zoning for the fung

shui woodland and the woodland adjoining the Sai Kung East Country Park along the boundary of the whole area except the permitted burial ground for indigenous villagers at the southwest. The areas recommended for "CA" zoning consisted of relatively undisturbed, native woodland. The "CA" zone would also serve as a buffer between the village area and the Sai Kung East Country Park adjoining the OZP boundary;

"Green Belt" ("GB")

(z) land use proposal - to reflect the traditional burial ground at the southwestern vegetated knoll of Pak Tam Au, it was proposed that the area be designated as "GB". The boundary of this proposed "GB" zone adjoined the "CA" zone proposed above and the Sai Kung East Country Park and Pak Tam Road;

Land for Village Development

- (aa) To Kwa Peng and Pak Tam Au were the only two recognized villages in the Area and the areas of their 'VE' were about 5.23 ha and 3.74 ha respectively. According to the 2011 Population Census, the population in the To Kwa Peng and Pak Tam Au areas was below 50 persons;
- (bb) the latest information on the Small House demand was obtained from the District Lands Officer/Tai Po, Lands Department (DLO/TP, LandsD). According to the established practice of the Board, if there was substantial and unjustified increase in the updated 10-year demand forecast figure when compared with the previous corresponding figure during the preparation of the DPA Plan, the latter would be adopted for the preparation of the OZP unless strong justifications were received by the respective IIR;
- (cc) as such, the total Small House demand of 102 for To Kwa Peng (i.e.

current outstanding (72) plus previous 10-year forecast (30) in 2010) and 36 for Pak Tam Au (i.e. current outstanding (11) plus previous 10-year forecast (25 rather than "over 25") in 2010) were adopted. Based on PlanD's preliminary estimate, land required for meeting the Small House demand of 102 (for To Kwa Peng) and 36 (for Pak Tam Au) was about 2.55 ha and 0.90 ha respectively;

- (dd) with reference to the Small House demand and 'VE' for the recognized villages as enumerated above, PlanD had analyzed the conditions of the area within 'VE' taking account of the existing village cluster, environmental conditions, natural terrain and topography of the Area:
 - (i) To Kwa Peng Village was mainly concentrated at the toe of the hillslopes in the central part of the area. Land within the 'VE' at the central part of the area comprised existing village clusters and ruin structures of To Kwa Peng Village and the adjoining fung shui wood, as well as some hilly slopes in the south, a knoll in the east, some fallow agricultural land with a natural stream in the north-west and the natural coastline with a narrow strip of mangrove in the north; and
 - (ii) for Pak Tam Au Village, the existing village cluster was mainly concentrated at the toe of the hillslopes in the north-western part of the area near Pak Tam Road. Land within the 'VE' at the central and north-western part of the area comprised existing village clusters and ruin structures of Pak Tam Au Village and the adjoining *fung shui* wood, as well as some hilly slopes in the north and west, some fallow agricultural land in the east, south and west, and a natural stream in the south;
- (ee) given the natural environment with conservation and landscape value coupled with inaccessibility due to lack of or limited vehicular access, an incremental approach for designation of "V" zone for

Small House development had been adopted with an aim to consolidating Small House development at suitable locations so as to avoid undesirable disturbances to the natural environment and overtaxing the limited infrastructure in the Area;

- (ff) discounting the surrounding environmentally sensitive areas, including coastal mangrove and mudflat, natural stream and woodland which were zoned "CA", "CPA" and "GB" zones, the area for "V" was about 1.94 ha of land (for To Kwa Peng) and about 3.64 ha of land (for Pak Tam Au);
- in To Kwa Peng, there was insufficient land to meet the outstanding and 10-year Small House demand (a deficit of about 1.58 ha of land or equivalent to about 64 Small House sites). For Pak Tam Au, there was sufficient land to meet the outstanding and 10-year Small House demand (a surplus of about 0.94 ha of land or equivalent to about 37 Small House sites). Opportunity might be taken to make use of the surplus area to accommodate the potential cross-village applications for areas where there was a shortage of available land for Small House developments, such as for To Kwa Peng;
- (hh) overall, there was still insufficient land to meet the total outstanding and 10-year Small House demand in To Kwa Peng and Pak Tam Au (a deficit of about 0.64 ha of land or equivalent to about 27 Small House sites). However, the villagers might apply for Small House development in other zones, including the proposed "GB" zone in To Kwa Peng, which would be considered by the Board on its individual merits;
- (ii) for Pak Tam Au, while the channelized part of a stream passed through the middle of the proposed "V" zone, there were practical difficulties to exclude this channelized stream and the adjoining area from the "V" zone. In this regard, it would be clearly stated in the Explanatory Statement (ES) of the "V" zone that when processing

Small House grant and applications in close proximity to existing stream courses, AFCD and PlanD should be consulted;

(jj) in addition, the Pak Tam Au area also fell entirely within the upper indirect WGG. For any village type development within the "V" zone, it had to be demonstrated that the water quality within the WGG would not be affected by the proposals;

Draft Outline Zoning Plan

- (kk) planning intention the general planning intention of the Area was to protect its conservation and landscape value which complemented the overall naturalness and the landscape beauty of the surrounding Sai Kung East and Sai Kung West Country Parks;
- (II) land use zonings the land use proposals highlighted above were incorporated in the draft OZP No. S/NE-TKP/B in Appendix I of the Paper and detailed in paragraph 10 of the Paper as summarised below:
 - (i) an area of 5.58ha (22.36% of the total planning scheme area) was zoned "V" to cover both existing recognised villages (To Kwa Peng and Pak Tam Au) and areas of land considered suitable for village expansion. The boundaries of the "V" zones were drawn up having regard to the 'VE', the number of outstanding Small House applications, Small House demand forecast, local topography and site constraints;
 - (ii) an area of 1.79ha (7.17% of the total planning scheme area) was zoned "GB". In To Kwa Peng, the "GB" zone covered the natural stream and adjoining areas covered by relatively disturbed and young woodland from abandoned agricultural land. In Pak Tam Au, the "GB" zone covered the permitted burial ground;

- (iii) an area of 16.51 ha (66.14% of the total planning scheme area) was zoned "CA" to cover the relatively undisturbed native woodlands on the hillsides in both areas; and
- (iv) an area of 1.08ha was zoned "CPA" (4.33% of the total planning scheme area) to cover the coastal area along Ko Tong Hau mainly comprising mangrove-associated plants and backshore vegetation in To Kwa Peng;

Consultation

- (mm) the draft OZP together with its Notes and ES and the Planning Report had been circulated to relevant government bureaux and departments for comments. Comments received had been incorporated as appropriate; and
- (nn) subject to agreement of the Board, the draft OZP No. S/NE-TKP/B would be submitted to the Tai Po District Council and Sai Kung North Rural Committee for consultation. Comments collected would be submitted to the Board for further consideration prior to the publication of the draft OZP under section 5 of the Ordinance.
- 216. As the representatives of PlanD had finished the presentation, the Vice-chairman invited questions from Members. He said that the OZP had tried to balance the need for village development with the need for conservation. He noted that more land was zoned "V" in Pak Tam Au to cater for the shortfall in To Kwa Peng and about 80% of the overall demand in both villages could be satisfied.
- 217. A Member said that it appeared that too much land was reserved for "V" in Pak Tam Au. It might be inconsistent with the Board's practice if the updated 2013 Small House demand data, that were normally substantially higher than the previous data, was used for considering the "V" zone in Pak Tam Au. Another

Member considered that it was appropriate to provide for some 'surplus' land in Pak Tam Au to help cater for the deficit in To Kwa Peng.

- 218. A Member said that the OZP was a good example of sustainable development as it had struck a good balance between development and conservation. The Member supported the zoning of the fung shui woodland as "CA".
- 219. In response to the Members' questions, Mr C.K. Soh (DPO/STN) said that designation of "V" based on a number of factors, including the landscape, terrain and visual amenities of the area. On that basis, land identified suitable for "V" in To Kwa Peng was inadequate to satisfy the Small House demand of the village and hence, a larger "V" zone was designated in Pak Tam Au so that the overall Small House demand in both villages could be better provided for. In estimating the Small House demand for delineation of the "V" zones, the 2010 10-year forecasts, rather Even so, the "V" zones were only than the latest 2013 figures, were used. sufficient to satisfy about 80% of the overall Small House demand for both villages. The Secretary supplemented that similar approach of reserving more land in one village (that had more land suitable for development) to cater for the Small House demand in another village (that was subject to more development constraints) through cross-village Small House applications was also adopted in the Sai Kung area.

220. After deliberation, Members:

- (a) adopted the updated Explanatory Statement (ES) as an expression of the planning intention and objectives of the Board for various land use zonings of the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/B; and
- (b) <u>agreed</u> that the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/B together with its Notes and ES were suitable for submission to the Tai Po District Council and Sai Kung North Rural Committee for consultation.
- 221. The Chairman thanked the representatives of PlanD for attending the

meeting. They left the meeting at this point.

TOWN PLANNING BOARD

TPB PAPER NO. 9441 FOR CONSIDERATION BY THE TOWN PLANNING BOARD ON 4.10.2013

DRAFT TO KWA PENG AND PAK TAM AU
OUTLINE ZONING PLAN NO. S/NE-TKP/B
PRELIMINARY CONSIDERATION OF A NEW PLAN

DRAFT TO KWA PENG AND PAK TAM AU OUTLINE ZONING PLAN NO. S/NE-TKP/B PRELIMINARY CONSIDERATION OF A NEW PLAN

1. Purpose

The purpose of this paper is to present to Members the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/B (the Plan) and to seek Members' agreement that the Plan is suitable for submission to the Tai Po District Council (TPDC) and the Sai Kung North Rural Committee (SKNRC) for consideration.

2. Background

- 2.1 On 13.12.2010, under the power delegated by the Chief Executive, the Secretary for Development directed the Board, under section 3(1)(b) of the Town Planning Ordinance (the Ordinance), to prepare a Development Permission Area (DPA) Plan for the To Kwa Peng and Pak Tam Au area.
- 2.2 On 7.1.2011, the draft To Kwa Peng and Pak Tam Au DPA Plan No. DPA/NE-TKP/1 was exhibited for public inspection under section 5 of the Ordinance. During the plan exhibition period, a total of 206 representations and 227 comments were received. After giving consideration to the representations and comments on 15.7.2011, the Town Planning Board (the Board) decided not to meet the representations and not to propose any amendment to the draft DPA Plan.
- 2.3 On 7.2.2012, the Chief Executive in Council (CE in C), under section 9(1)(a) of the Ordinance, approved the draft To Kwa Peng and Pak Tam Au DPA Plan, which was subsequently renumbered as DPA/NE-TKP/2. On 17.2.2012, the approved To Kwa Peng and Pak Tam Au DPA Plan No. DPA/NE-TKP/2 was exhibited for public inspection under section 9(5) of the Ordinance.
- Pursuant to section 20(5) of the Ordinance, the To Kwa Peng and Pak Tam Au DPA Plan is effective for a period of 3 years until 7.1.2014. As such, an OZP has to be prepared to replace the DPA Plan in order to maintain statutory planning control over the To Kwa Peng and Pak Tam Au area upon expiry of the DPA Plan.
- 2.5 On 30.1.2013, under the power delegated by the Chief Executive, the Secretary for Development directed the Board, under section 3(1)(a) of the Ordinance, to prepare an OZP to cover the To Kwa Peng and Pak Tam Au area.

3. Planning Context

- 3.1 The To Kwa Peng area is located in the south side of Ko Tong Hau at the north-western edge of the Sai Kung East Country Park. It is accessible by a walking trail off Pak Tam Road or along the coast from the west and by marine access off a small pier fronting Ko Tong Hau and Long Harbour.
- 3.2 The Pak Tam Au area is located along Pak Tam Road at the western edge, integral with Sai Kung East Country Park. It is accessible by vehicle via Pak Tam Road and by walking trails connected to the Sai Kung East Country Park.
- 3.3 The To Kwa Peng area is of rural landscape character which comprises mainly fallow agricultural land and surrounded by shrubs and woodland. Mudflats and significant mangroves define the larger northern cove of To Kwa Peng. A natural stream near the western boundary of the To Kwa Peng area is flowing from south to north towards Ko Tong Hau. There is a small recognized village with a few Small Houses and fallow agricultural land near to the hillside slope toe but without direct access road. The To Kwa Peng area has high landscape value that the unique coastal landscape creates a natural shelter surrounded with vegetated knolls. However, some areas (about 0.5 ha) to the north-west of the village cluster has already disturbed by vegetation clearance, which have regenerated with wild grasses and shrubs. Site inspection revealed that there was recent tree felling near the pier.
- 3.4 The enclosed, tranquil and rural character and woodlands of the Pak Tam Au area has a high landscape value which complements the overall natural quality and the landscape beauty of the surrounding Sai Kung East and Sai Kung West Country Parks. Vegetation comprises woodland and scrub on lower valley sides and the woodland forms part of well-established vegetation in the Sai Kung East Country Park. The recognized Pak Tam Au village comprises pockets of terraced fallow agricultural land surrounded by the vegetated slope with some areas (about 3 ha) already disturbed by vegetation clearance in the central and southern parts of the area. The Pak Tam Au area has high landscape value. The landscape comprises a juxtaposition of distinct landscape character areas.

4. <u>Issues Arising from Consideration of the DPA Plan</u>

- 4.1 During the consideration of the representations to the draft DPA Plan on 15.7.2011, the following proposals from major groups were put forwarded for the Board's consideration:
 - (a) Environmental concern groups ¹ suggested that the whole To Kwa Peng and Pak Tam Au area or the ecologically and environmentally sensitive areas such as the coastal area and mangrove community, *fung shui* woodland and secondary forest and natural stream be designated for conservation purpose including "Coastal Protection Area" ("CPA"), "Conservation Area" ("CA") and "Green Belt" ("GB") zones; and

¹ Environmental concern groups include Designing Hong Kong, The Hong Kong Bird Watching Society, WWF Hong Kong, The Conservancy Association, Kadoorie Farm & Botanic Garden Corporation.

¹

- (b) Local villagers suggested that the central and north-western parts of Pak Tam Au be designated as "Village Type Development" ("V") for Small House developments, the area near the hill to the north of Pak Tam Au designated as "Government, Institute or Community" ("G/IC") for the development of community centre for clubhouse and recreational purposes, and the southern area as "Agriculture" ("AGR") for agricultural rehabilitation by the overseas returnees for Pak Tam Au.
- 4.2 While the Board decided not to meet the representations and not to propose any amendment to the draft DPA Plan, it was agreed that there was a need to strike a balance between environmental conservation and sustainable development of the Area which would be taken into account in the preparation of the future OZP.

5. Object of the Plan

The object of the Plan is to indicate the broad land-use zonings for the Area so that development and redevelopment within the Area can be put under statutory planning control. It also provides the planning framework for preparing more detailed non-statutory plans which form the basis for public works planning and site reservation for various uses.

6. The Planning Scheme Area

6.1 The Planning Scheme Area (the Area), which comprises two sub-areas, namely the To Kwa Peng area (about 9.77 hectares) and the Pak Tam Au area (about 15.19 hectares), covers a total area of about 24.96 hectares. The Area is encircled by the Sai Kung East Country Park in the east and Pak Tam Road and Sai Kung West Country Park in the west. The boundary of the Area is shown by a heavy broken line on the Plan (**Appendix I**).

To Kwa Peng

- 6.2 The To Kwa Peng area is located along the natural coast overlooking Ko Tong Hau at the north-western edge of the Sai Kung East Country Park about 12 km to the north-east of Sai Kung Town. It is accessible by a walking trail off Pak Tam Road or along the coast from the west and by marine access off a small pier fronting Ko Tong Hau and Long Harbour.
- 6.3 The To Kwa Peng area is rural in character comprising mainly fallow agricultural land surrounded by shrubs and woodland. While To Kwa Peng is a recognized village, the area is basically uninhabited with some ruins and a row of about 7 village houses in dilapidated condition. To the west of these houses is a stretch of fallow agricultural land. The surrounding areas have some signs of previous excavation and site formation works but the area has regenerated with scattered wild grasses and shrubs. There are graves located to the south on the hillslope along the southern boundary of the area.

6.4 There is a natural stream near the western boundary of the To Kwa Peng area flowing from south to north towards Ko Tong Hau. Estuarine mangrove and mudflat habitats are found along the coast fronting Ko Tong Hau. According to the Agriculture, Fisheries and Conservation Department (AFCD), uncommon species of mangroves, *Heritiera littoralis* (銀葉樹) and *Lumnitzera racemosa* (欖季) and seagrass, *Halophila minor* (小喜鹽草) are found in this mudflat. Existing physical features with the village 'environs' ('VE') for To Kwa Peng is shown on **Plan 1a**.

Pak Tam Au

- 6.5 The Pak Tam Au area, which falls entirely within an upper indirect water gathering ground, is located along Pak Tam Road at the western edge of the Sai Kung East Country Park about 500m to the south of the To Kwa Peng area. It is accessible by vehicle via Pak Tam Road and by walking trails connected to the Sai Kung East Country Park. There are bus and mini bus routes operating between Sai Kung Public Pier and Pak Tam Au.
- 6.6 With a scenic setting, the area is rural in character comprising mainly fallow agricultural land at the centre surrounded by shrubs and woodland. Pak Tam Au is a recognized village with about 12 village houses up to three storeys in height in fair to good condition. A short local track connects these houses with Pak Tam Road
- 6.7 The central part of the area comprises pockets of terraced fallow agricultural land overgrown with grass and shrubs surrounded to its north and south by slopes covered with woodland and dense natural vegetation. The woodland forms part of the well-established vegetation in the Sai Kung East Country Park. Some graves are found at the small hill at the south-western corner of the area. There is a partially trained stream running across the central portion of the area from the slope in the east towards the west.
- 6.8 The tranquil rural character and woodlands of Pak Tam Au has a high landscape value which complements the overall natural quality and the landscape beauty of the surrounding Sai Kung East and Sai Kung West Country Parks. The area, with a section of Maclehose Trail and Pak Tam Country Trail running across its northern and southern regions, is a popular spot for hikers. Existing physical features with the 'VE' for Pak Tam Au is shown on **Plan 2a**.

7. Development Proposals Received in the Course of Preparation of the Plan

7.1 Since the gazettal of the draft DPA Plan on 7.1.2011, and in the course of preparing the Plan, two specific planning proposals and 22 planning applications have been received. Also, some views/proposals were received from informal meetings/site visits with concerned parties. These proposals are summarised below:

Specific planning proposals

- (a) For To Kwa Peng, the relevant indigenous inhabitant representative (IIR) submitted a proposal on the "V" zone boundaries. He proposes to zone all the private land within the 300-foot 'VE' and part of the private land beyond the 'VE' as "V" (**Figure A of Appendix V**).
- (b) For Pak Tam Au, AF Architecture & Planning Consultants Ltd submitted sustainable development planning and ecological conservation proposals, which comprise a total of 76 nos. of Small Houses, open space with an eating place, a youth hostel, an organic hobby farm, and an ancillary car park, etc., with an access road/ emergency vehicular access (EVA), two communal sewage treatment plants (STPs) and landscape planting (**Figures B and C of Appendix VI**).

Views/proposals from informal meetings/site visits with concerned parties

- (c) The local villagers are of the view that there is a need to strike a balance between development and conservation and adequate land should be designated to meet their Small House demand.
- (d) Environmental concern groups² suggested that the future OZP should focus on conservation and the proposed "V" zone should be confined to the existing ruins of structures and its surrounding areas while the ecologically sensitive areas should be preserved and protected. Also, conservation zonings such as "CA" and "CPA" are preferred for the secondary woodland extending from the Country Parks, natural streams and coastal areas including the mangrove/freshwater marshes thereat. Adequate buffer zones should also be provided on both sides of natural streams.
- (e) Kadoorie Farm & Botanic Garden Corporation has also provided the information on the important habitats in the Area. In this regard, AFCD has no comment on the information on the rare and protected species as it is based on the previous record of Kadoorie Farm & Botanic Garden Corporation.
- 7.2 The planning assessments of the two specific proposals are at **Appendices V and VI respectively**. Since the Area is part of the wider natural system of the Sai Kung East Country Park, Small House development will be concentrated at suitable location so as to preserve the rural character of the Area. In preparing the draft OZP and delineating the various zones such as "CPA", "CA", "GB", "V", etc., the views conveyed in the above proposals have been taken into account. Details will be explained in paragraph 8 below.

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² See footnote 1.

7.3 A total of 22 planning applications in the Area were received before, with 15 for NTEH (Small House) and seven for rebuilding of NTEH (non-Small House). Twelve applications were subsequently withdrawn. Amongst these, one planning application (No. A/DPA/NE-TKP/1) for three Small House developments at the Pak Tam Au area was approved with conditions in July 2011 mainly on the ground that given the special circumstances of the case, where Certificate of Exemption (C of E) for the three Small Houses had been issued six years ago, and concerned Government departments, including the Water Supplies Department (WSD) and the Environmental Protection Department (EPD) had no objection to the application subject to imposing relevant approval conditions. Six planning applications for Small Houses in Pak Tam Au and three planning applications for Small Houses in To Kwa Peng were rejected mainly on, inter alia, adverse environmental impacts on the surrounding areas. Details of the applications are summarized at Annex A of Appendix IV and their locations are shown on Plans A(i) and A(ii).

8. Land Use Planning Consideration

Environmental and Conservation Considerations

To Kwa Peng (Plans 1a to 1d and photos on Figures 5c to 5h of Appendix IV)

"Conservation Area" ("CA")

- 8.1 According to AFCD, To Kwa Peng is mainly covered by wooded areas, bare ground and village houses. The wooded areas adjacent to the Sai Kung East Country Park are relatively undisturbed and ecologically-linked to the natural habitats therein. The *fung shui* woodland behind the village remains largely intact with a dense canopy (**Photos 4 and 5** on **Figure 5d** of **Appendix IV**). A high diversity of flora species (96 species), including the protected *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉), has been recorded. *Aquilaria sinensis* (土沉香) has also been recorded in the woodland at the knoll northeast of the *fung shui* woodland. Though most of the species recorded in the subject site are common and widespread, To Kwa Peng has been identified as a butterfly hotspot with over 40% of the local species recorded, including the very rare *Choaspes hemixanthus* (牛黃綠弄蝶), and the rare *Zographetus satwa* (黃裳腫脈弄蝶) and *Abraximorpha davidii* (白弄蝶).
- 8.2 AFCD recommends that the "CA" zoning should not only cover the *fung shui* woodland, but also the woodland on the eastern side of the area and the woodland adjoining the Sai Kung East Country Park along the southern and western boundary of the area. This "CA" zone mainly consists of relatively undisturbed native woodland adjacent to the Country Park (**Plans 1b to 1d**).

"Coastal Protection Area" ("CPA")

- For the coastal areas, AFCD comments that the natural mudflat on the coast 8.3 supports dense mangrove stands comprising seven species of mangroves, including the uncommon Heritiera littoralis (銀葉樹) and Lumnitzera racemosa (糟季). Two seagrass species, Halophila minor (小喜鹽草) and H. ovalis (喜鹽草) have also been recorded at the mudflat. The area is one of the most species-rich sites in Hong Kong with respect to mangrove fauna, with a total of 52 species recorded (Figures 5e and 5f of Appendix IV). The Chief Town Planner/Urban Design and Landscape, Planning Department (CTP/UD&L, PlanD) advises that some wetland plants, such as Kandelia canel (水筆仔), Heritiera littoralis (銀葉樹), Glochidion zeylanicum (香港算盤子), etc., are found along the eastern coast of To Kwa Peng and along two sides of the existing footpath. According to the Landscape Value Mapping of Hong Kong (2005), the To Kwa Peng area is of a high landscape value of rural character with scenic setting (Figure 5c of Appendix IV).
- It is recommended to zone the coastal areas along Ko Tong Hau as "CPA" in order 8.4 to conserve the coastal habitats and provide visual buffer to the scenic coastline (**Plans 1b and 1c**). The seaward boundary of the proposed "CPA" zone as shown on **Plan 1d** coincides with the coastline and the existing pier while the western landward boundary has been drawn up making reference to the topographic features and site conditions, including footpath and natural vegetated slopes. eastern boundary of this proposed "CPA" zone is contiguous with the boundary of the "CA" zone proposed above. The "CPA" zone primarily consists of the natural coast, estuarine, mangrove, backshore vegetation and the existing pier, etc., with the objective to comprehensively preserve the coastal landscape and minimize the adverse impact from village development. It should be noted that since two existing village houses are located in the middle of the coastal area near the pier (Figure 5g of Appendix IV), it would not be appropriate to exclude these structures and the adjoining areas from the "CPA" zone. Future proposed redevelopment of these houses would require planning permission from the Board.

"Green Belt" ("GB")

The area to the west of the existing village cluster of To Kwa Peng mainly 8.5 comprises relatively disturbed, young woodland and shrubby grassland developed from abandoned agricultural land (Plans 1b and 1c). A natural stream passes through this woodland/ shrubby grassland from the south to the semi-enclosed coast of Ko Tong Hau with limited tidal flush in the north where abundant mangroves and backshore vegetation are found as detailed in the preceding AFCD comments that maintaining a buffer between the natural stream and the village is desirable from nature conservation point of view. On the landscape aspect, CTP/UD&L, PlanD advises that the natural stream is a significant landscape resource, particularly the estuarine area of this stream which supports mangroves and adjacent coastal plants and provides high coastal landscape scenery value (Figures 5e to 5h of Appendix IV). Besides, there are abundant trees and vegetation along both sides of this stream. As the natural stream together with the adjoining shrubland and young woodland as well as the estuarine area constitute distinctive landscape resources, there is a need to impose planning control against undesirable village expansion in close proximity to the stream so as to safeguard the integrity of the existing landscape settings.

8.6 It is proposed to designate the natural stream and the adjoining areas mainly occupied by shrubland and young woodland as "GB" so as to provide a buffer between the village development/ expansion and conservation areas or Country The proposed "GB" zone would provide planning control against Park (**Plan 1d**). undesirable encroachment of village expansion upon the natural stream and adjoining shrubland and young woodland thereby preserving the distinctive natural settings and landscape value. The western edge of the proposed "GB" zone coincides with the adjoining Sai Kung East Country Park whereas the northern and southern boundaries are adjacent to the "CPA" and "CA" zones proposed above. For the eastern boundary of the "GB" zone, since there are no distinctive topographical features or site conditions, such as footpath or natural slopes, etc, a set-back distance of 20m from the natural stream has been proposed. In this regard, AFCD and CTP/UD&L, PlanD support the proposed "GB" zone, which is considered appropriate and sufficient to form a buffer from nature conservation and landscape perspectives.

Pak Tam Au (Plans 2a to 2d and photos on Figures 5i to 5l of Appendix IV)

"Conservation Area" ("CA")

8.7 According to AFCD, the Pak Tam Au area is mainly covered by wooded areas, bare ground and village houses. A partially disturbed fung shui woodland is found behind the village with a moderately high diversity of flora species (62 species), including the protected Pavetta hongkongensis (香港大沙葉). The well-wooded periphery of the area is ecologically-linked to the wide stretch of natural vegetation in the Sai Kung East Country Park though most of the fauna recorded therein are common and widespread species. AFCD recommends "CA" zoning for the fung shui woodland and the woodland adjoining the Sai Kung East Country Park along the boundary of the whole area except the permitted burial ground for indigenous villagers at the southwest. The areas recommended for "CA" zoning consist of relatively undisturbed, native woodland. The "CA" zone will also serve as a buffer between the village area and the Sai Kung East Country Park adjoining the OZP boundary (Plans 2b and 2c). The outer boundary of the proposed "CA" zone as shown on **Plan 2d** follows the boundary of the adjoining Sai Kung East Country Park in the north, east and south, Pak Tam Road in the west and the permitted burial ground for indigenous villagers at the southwest while the inner boundary has been drawn up having regard to the existing village cluster, topographical features and site conditions, including footpath, channelized stream and ponds, etc.

"Green Belt" ("GB")

8.8 To reflect the traditional burial ground at the southwestern vegetated knoll of Pak Tam Au, it is proposed to designate the area as "GB". The boundary of this proposed "GB" zone adjoins the "CA" zone proposed above and the Sai Kung East Country Park and Pak Tam Road (**Plan 2d**).

Land for Village Development

- 8.9 To Kwa Peng and Pak Tam Au are the only two recognized villages in the Area and the areas of their 'VE' are about 5.23 ha and 3.74 ha respectively (**Plans 1a and 2a**). According to the 2011 Population Census, the population in the To Kwa Peng and Pak Tam Au areas is below 50 persons.
- 8.10 The latest information on the Small House demand has been obtained from the District Lands Officer/Tai Po, Lands Department (DLO/TP, LandsD). However, According to the established practice of the Board, if there is a substantial and unjustified increase in the updated 10-year demand forecast figure when compared with the previous corresponding figure when preparing the DPA Plan, the latter would be adopted in the preparation of the OZP unless strong justifications are received by the respective IIR. As such, the total Small House demand of 102 for To Kwa Peng (i.e. current outstanding (72) in 2013 plus previous 10-year forecast (30) in 2010) and 36 for Pak Tam Au (i.e. current outstanding (11) in 2013 plus previous 10-year forecast (25 rather than "over 25") in 2010) are adopted. Based on PlanD's preliminary estimate, land required for meeting the Small House demand of 102 (for To Kwa Peng) and 36 (for Pak Tam Au) is about 2.55 ha and 0.90 ha respectively (**Table 1**).
- 8.11 With reference to the Small House demand and 'VE' for the recognized villages as enumerated above, PlanD has analyzed the conditions of the area within 'VE' taking account of the existing village cluster, environmental conditions, natural terrain and topography of the Area. It should be noted that the To Kwa Peng Village is mainly concentrated at the toe of the hillslopes in the central part of the area (Plan 1a). Land within the 'VE' at the central part of the area comprises not only existing village clusters and ruin structures of To Kwa Peng Village as well as the adjoining fung shui wood, but also some hilly slopes in the south, a knoll in the east, some fallow agricultural land with a natural stream in the north-west and the natural coastline with a narrow strip of mangrove in the north. As for Pak Tam Au Village, the existing village cluster is mainly concentrated at the toe of the hillslopes in the north-western part of the area near Pak Tam Road (Plan 2a). Land within the 'VE' at the central and north-western part of the area comprises not only existing village clusters and ruin structures of Pak Tam Au Village as well as the adjoining fung shui wood, but also some hilly slopes in the north and west, some fallow agricultural land in the east, south and west, and a natural stream in the south.
- 8.12 Given the natural environment with conservation and landscape value coupled with its inaccessibility due to lack of or limited vehicular access, an incremental approach for designation of "V" zone for Small House development has been adopted with an aim to consolidating Small House development at suitable locations so as to avoid undesirable disturbances to the natural environment and overtaxing the limited infrastructure in the Area. Discounting the surrounding environmentally sensitive areas, including coastal mangrove and mudflat, natural stream and woodland which are zoned "CA", "CPA" and "GB", the residual area for "V" is about 1.94 ha of land (for To Kwa Peng) and about 3.64 ha of land (for Pak Tam Au) (**Plans 1d and 2d**).

Table 1: Small House Demand for To Kwa Peng and Pak Tam Au Villages

Village	Small House Demand Figure in 2010		Small House Demand Figure in 2013		'VE'	"V" zone on	Required land to	Available Land to	of the new
	Outstanding Demand	10-year forecast (2010 – 2019)	Outstanding Demand	10-year forecast (2013 – 2022)	Area (ha)	draft OZP (ha)	meet new demand (ha)	meet new demand figure (ha)	demand met by available land
To Kwa Peng	72	30*	72*	60*	5.23	1.94	2.55	0.97	38%
Pak Tam Au	14	> 25*	11*	100*	3.74	3.64	0.90	1.84	204%
Total	86	> 55	83	160	8.97	5.58	3.45	2.81	81%

^{*} When considering the land use zoning for the "V" zone, it is noted that no justification has been provided by the IIRs for the substantial increase in the latest 10-year forecast. In such circumstances, the updated outstanding demand in 2013, i.e. 72 for To Kwa Peng and 11 for Pak Tam Au, and the previous 10-year forecast provided in 2010, i.e. 30 for To Kwa Peng and 25 rather than "over 25" for Pak Tam Au, are adopted as the total Small House demand figures in preparation of the draft OZP.

- 8.13 In To Kwa Peng, there is insufficient land to meet the outstanding and 10-year Small House demand (a deficit of about 1.58 ha of land or equivalent to about 64 Small House sites). For Pak Tam Au, while there is sufficient land to meet the outstanding and 10-year Small House demand (a surplus of about 0.94 ha of land or equivalent to about 37 Small House sites), opportunity may be taken to make use of the surplus area to accommodate the potential cross-village applications where there is a shortage of available land for Small House developments, such as To Kwa Peng. Overall, there is still insufficient land to meet the total outstanding and 10-year Small House demand in To Kwa Peng and Pak Tam Au (a deficit of about 0.64 ha of land or equivalent to about 27 Small House sites). However, the villagers may apply for Small House development in other zones, including the proposed "GB" zone in To Kwa Peng, which would be considered by the Board on its individual merits.
- 8.14 For Pak Tam Au, while the channelized part of a stream passes through the middle of the proposed "V" zone, there are practical difficulties to exclude this channelized stream and the adjoining area from the "V" zone. regarding the concern on potential impacts of developments in particular Small Houses within "V" zones on existing stream courses in the Area, it should be noted that in accordance with the Environmental, Transport and Works Bureau's Technical Circular (Works) No. 5/2005, under the current administrative practice, development proposals/submissions that may affect natural streams / rivers, the approving / processing authorities at various stages of the development should consult and collate comments from the AFCD and relevant authorities and incorporate relevant comments/advice as conditions of approval wherever possible. Accordingly, LandsD when processing Small House grant and applications in close proximity to existing stream courses, should consult concerned departments including AFCD and PlanD to ensure that all relevant departments would have adequate opportunity to review and comment on the applications. clearly stated in the Explanatory Statement of the "V" zone that when processing Small House grant and applications in close proximity to existing stream courses, AFCD and PlanD should be consulted.

8.15 In addition, the Pak Tam Au area also falls entirely within the upper indirect water gathering ground. For any village type development within the "V" zone, it should be demonstrated that the water quality within the water gathering ground will not be affected by the proposals. In general, the use of septic tank and soakaway systems for sewage treatment and disposal is not considered as an acceptable means for new village developments located in water gathering grounds. There should be demonstrably effective means (such as proper waste water treatment plant) to ensure that the effluent water quality is acceptable to concerned government departments.

9. Planning Intention

- 9.1 The Area forms an integral part of the natural system of the natural woodlands in the adjoining Sai Kung East Country Park with a wide spectrum of natural habitats including, *inter alia*, mature woodland, hillside shrubland, streamcourses, estuarine mangrove and mudflat, etc., which support some rare/uncommon flora and fauna of the Area and should be preserved and protected. The general planning intention of the Area is to protect its conservation and landscape value which complements the overall naturalness and the landscape beauty of the surrounding Sai Kung East and Sai Kung West Country Parks.
- 9.2 Apart from the environmental and ecological considerations, development in the Area is constrained by limited transport and infrastructural provisions. It is also intended to consolidate village so as to avoid undesirable disturbances to the natural environment and overtaxing the limited infrastructure in the Area.

10. Land Use Zonings

- 10.1 "Village Type Development" ("V"): Total Area 5.58 ha
 - (a) The planning intention of this zone is to designate both existing recognized villages and areas of land considered suitable for village expansion. Land within this zone is primarily intended for development of Small Houses by indigenous villagers. It is also intended to concentrate village type development within this zone for a more orderly development pattern, efficient use of land and provision of infrastructures and services. Selected commercial and community uses serving the needs of the villagers and in support of the village development are always permitted on the ground floor of a New Territories Exempted House. Other commercial, community and recreational uses may be permitted on application to the Town Planning Board.
 - (b) To Kwa Peng and Pak Tam Au villages are the two recognized villages in the Area. The boundaries of the "V" zone are drawn up having regard to the 'VE', the number of outstanding Small House applications, Small House demand forecast, local topography and site constraints. Areas of difficult terrain, dense vegetation, stream courses and burial grounds have been avoided as far as possible.

(c) Some areas zoned "V" are overlooked by steep natural hillsides and may be affected by potential natural terrain landslide hazards. For future development in these areas, the developer(s) may be required to carry out natural terrain hazard study and provide suitable hazard mitigation measures, if found necessary, as part of the development. As diversion of streams or filling of pond may cause adverse drainage impacts on the adjacent areas and adverse impacts on the natural environment, permission from the Board is required for such activities.

10.2 "Green Belt" ("GB"): Total Area 1.79 ha

- (a) The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone.
- (b) The sites zoned "GB" include the vegetated hillslopes, natural stream and woodland adjoining the west of the "V" zone of the existing main village cluster of To Kwa Peng and the vegetated hillslopes and woodland at the southwest part of Pak Tam Au. These "GB" zones mainly comprise relatively disturbed, young woodland and shrubby grassland developed from abandoned agricultural land, which provide a buffer between the development and conservation areas or Country Park area.
- (c) There is a traditional burial ground at the southwestern part of the Pak Tam Au area which is within this zone. It has been in existence for many years, which are considered as an existing use and intended for burial places of deceased indigenous villagers in the area. To respect the local ritual and tradition, burial activities within this zone are generally tolerated.
- (d) There is a general presumption against development within this zone. Development in this zone will be strictly controlled. Development proposals will be considered by the Board on individual merits taking into account the relevant Town Planning Board Guidelines. As diversion of streams, filling of land/pond or excavation of land may cause adverse drainage impacts on the adjacent areas and adverse impacts on the natural environment, permission from the Board is required for such activities.

10.3 "Conservation Area" ("CA"): Total Area 16.51 ha

(a) This zoning is intended to protect and retain the existing natural landscape, ecological or topographical features of the area for conservation, educational and research purposes and to separate sensitive natural environment such as Country Park from the adverse effects of development. There is a general presumption against development in this zone. In general, only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted.

- (b) The "CA" zoning, which mainly comprises relatively undisturbed native woodland ecologically-linked to the natural habitats in the adjacent Sai Kung East Country Park, covers the *fung shui* woods behind the villages and the adjoining wooded areas. In To Kwa Peng, a high diversity of flora species (96 species), including the protected *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉), has been recorded. *Aquilaria sinensis* (土沉香) has also been recorded in the woodland at the knoll northeast of the *fung shui* woodland. Though most of the species recorded in the subject site are common and widespread, To Kwa Peng has been identified as a butterfly hotspot with over 40% of the local species recorded, including the very rare *Choaspes hemixanthus* (牛黃綠弄蝶), and the rare *Zographetus satwa* (黃裳腫脈弄蝶) and *Abraximorpha davidii* (白弄蝶). For Pak Tam Au, a partially disturbed *fung shui* woodland is found behind the village with a moderately high diversity of flora species (62 species), including the protected *Pavetta hongkongensis* (香港大沙葉).
- (c) New residential development is not permitted under this zone. Redevelopment of existing houses may be permitted on application to the Board. Diversion of streams, filling of land/pond or excavation of land may cause adverse drainage impacts on adjacent areas and adverse impacts on the natural environment. In view of the conservation value of the area within this zone, permission from the Board is required for such activities.

10.4 "Coastal Protection Area" ("CPA"): Total Area 1.08 ha

- (a) This zoning is intended to conserve, protect and retain the natural coastlines and the sensitive coastal natural environment, including attractive geological features, physical landform or area of high landscape, scenic or ecological value, with a minimum of built development. It may also cover areas which serve as natural protection areas sheltering nearby developments against the effects of coastal erosion. There is a general presumption against development in this zone. In general, only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted.
- (b) This zone covers the coastal areas of To Kwa Peng along Ko Tong Hau, where estuarine mangrove and mudflat habitats locate. The natural mudflat on the coast is one of the most species-rich sites in Hong Kong with respect to mangrove fauna. Some uncommon species of mangroves, Heritiera littoralis (銀葉樹) and Lumnitzera racemosa (欖季) and seagrass, Halophila minor (小喜鹽草) are found in this mudflat. Some wetland plants, such as Kandelia canel (水筆仔), Heritiera littoralis (銀葉樹), Glochidion zeylanicum (香港算盤子), Clochidion zeylanium (香港算盤子), Excoecaria agallocha (海漆) and Cerbera manghas (海芒果) etc., are found along the east coast of To Kwa Peng and along two sides of the existing footpath.

- (c) New residential development is not permitted under this zone. Redevelopment of existing houses may be permitted on application to the Board. Any diversion of streams, filling of land/pond or excavation of land may cause adverse drainage impacts on adjacent areas and adverse impacts on the natural environment. In view of the conservation value of the area within this zone, permission from the Board is required for such activities.
- 10.5 Detailed land use zoning proposals are described in Section 9 of the Explanatory Statement (ES) (**Appendix III**) and Section 4.4 of the Planning Report (**Appendix IV**).

11. Cultural Heritage

There is no record of built heritage and archaeological sites in the Area.

12. Notes of the Plan

Attached to the Plan is a set of Notes which shows the types of uses or developments which are always permitted within the Area and in particular zones and which may be permitted by the Board, with or without conditions, on application. The Notes of the Plan are prepared in accordance with the Master Schedule of Notes to Statutory Plans endorsed by the Board, taking account of local circumstances, and the planning intention of various zones. The provision for application for planning permission under section 16 of the Ordinance allows greater flexibility in land-use planning and control of development to meet the changing needs.

13. Consultation

- 13.1 The draft OZP together with its Notes and ES and the Planning Report have been circulated to relevant Government bureaux and departments for comments. Comments received have been incorporated into the draft OZP, its Notes and ES and the Planning Report as appropriate.
- 13.2 Subject to the agreement of the Board, the draft OZP No. S/NE-TKP/B will be submitted to the TPDC and SKNRC for consultation. Comments from the TPDC and STKDNRC will be submitted to the Board for further consideration prior to the publication of the draft OZP under section 5 of the Ordinance.

14. Decision Sought

Members are invited to:

- (a) consider the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/B (**Appendix I**) together with its Notes and ES (**Appendices II and III**) and the Planning Report (**Appendix IV**);
- (b) adopt the updated ES as an expression of the planning intension and objectives of the Board for various land use zonings of the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/B; and

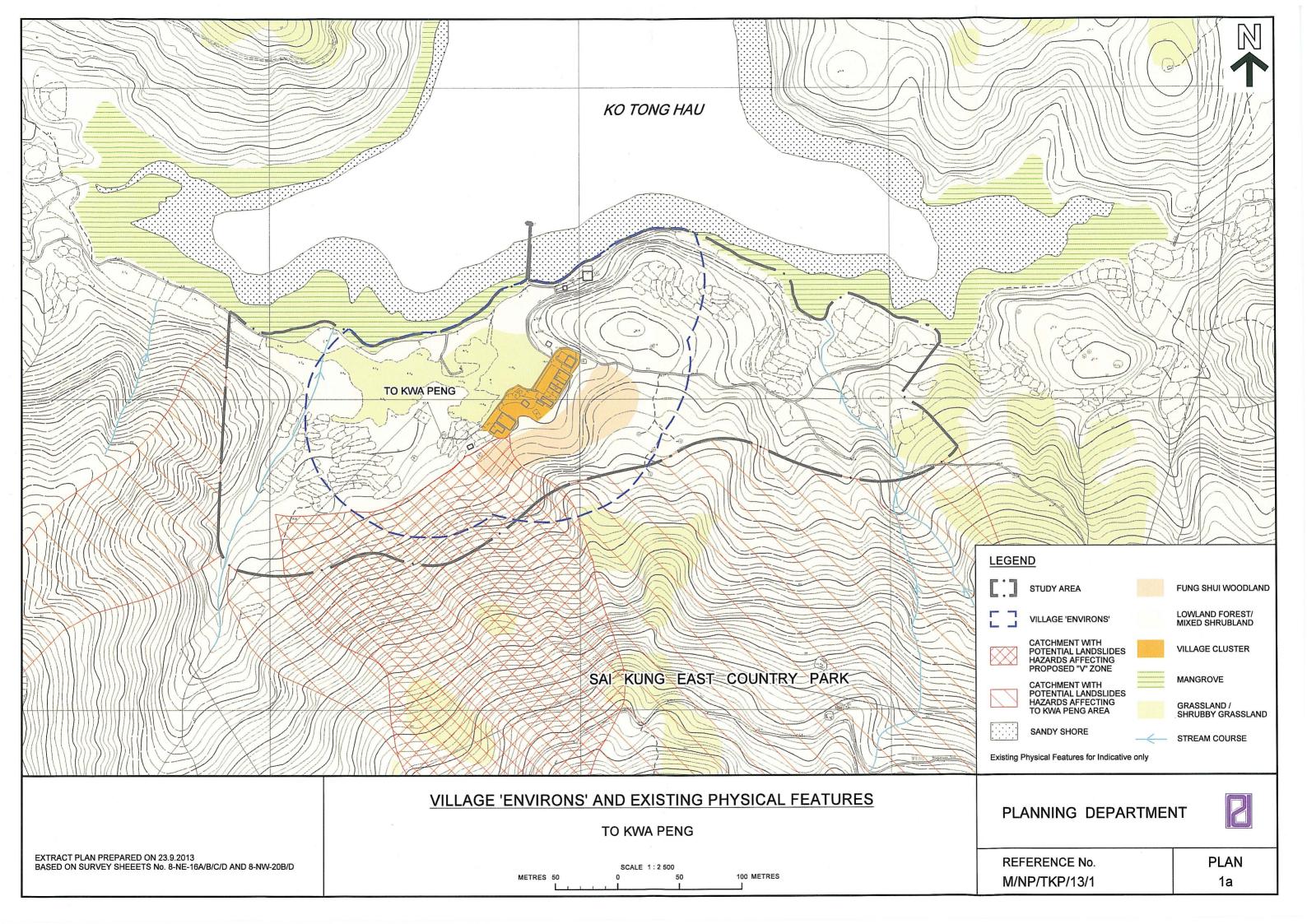
(c) agree that the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/B together with its Notes and ES (**Appendices I** to **III**) are suitable for submission to the TPDC and SKNRC for consultation.

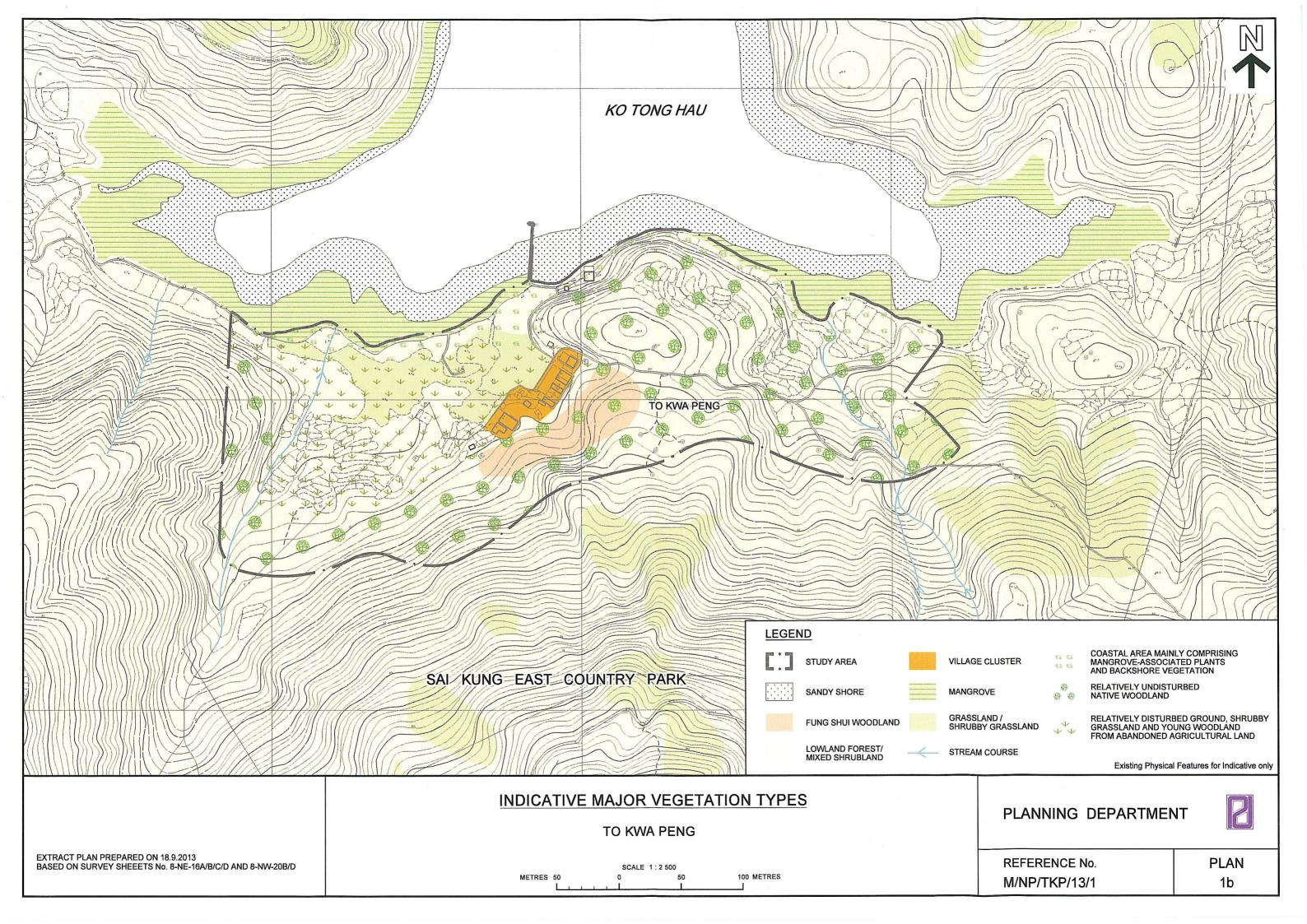
15. Attachment

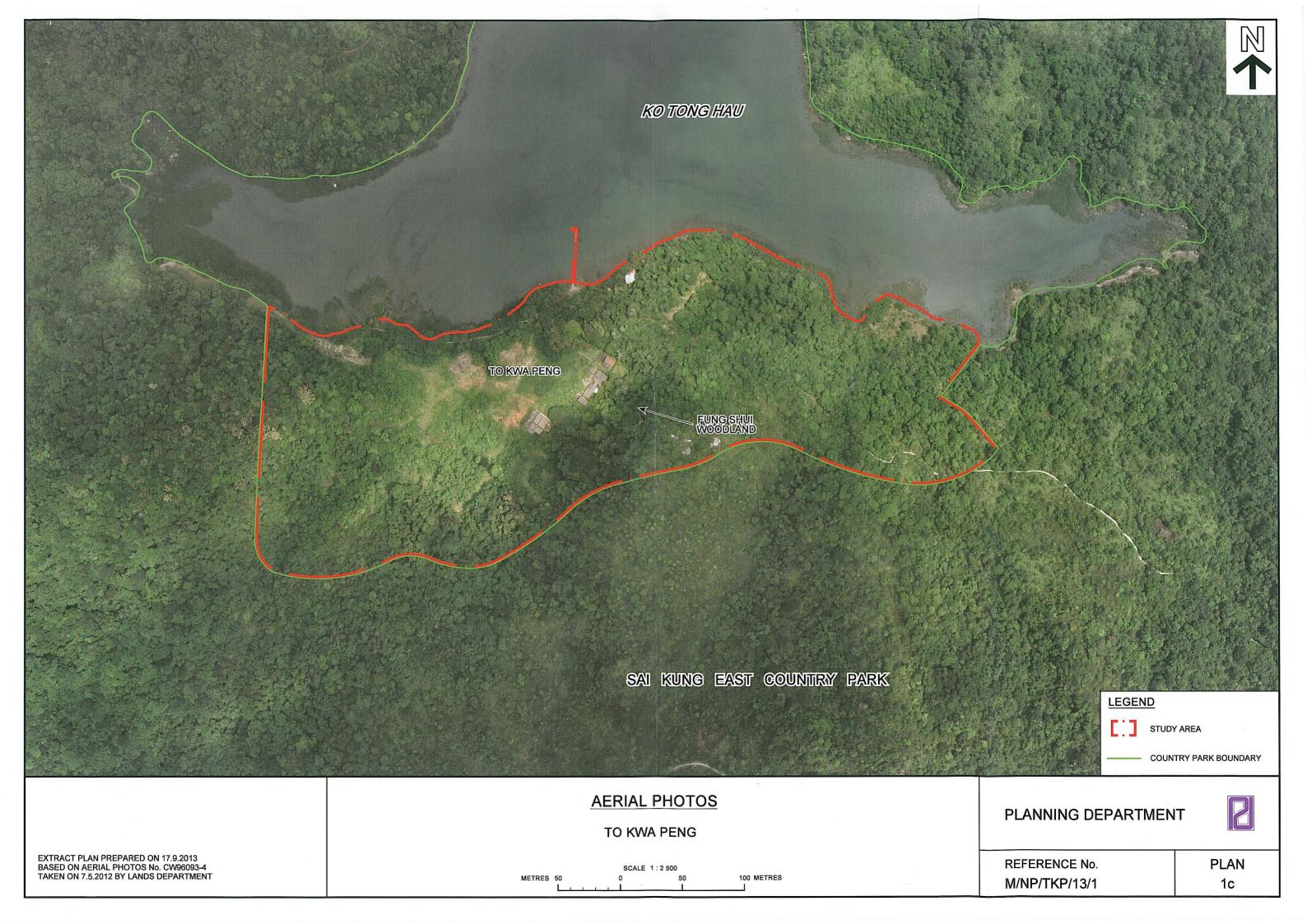
Plan 1a Plan 1b Plan 1c Plan 1d	Village 'environs' and existing physical features of To Kwa Peng Indicative major vegetation types in To Kwa Peng Aerial photo of To Kwa Peng Proposed land uses of To Kwa Peng				
Plan 2a	Village 'environs' and existing physical features of Pak Tam Au				
Plan 2b	Indicative major vegetation types in Pak Tam Au				
Plan 2c	Aerial photo of Pak Tam Au				
Plan 2d	Proposed land uses of Pak Tam Au				
Appendix I Appendix II	Draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/B Notes of the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/B				
Appendix III	Explanatory statement of the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/B				
Appendix IV	Planning Report on To Kwa Peng and Pak Tam Au				
Appendix V	Planning assessments on the proposed "V" zone boundaries received from the IIR of To Kwa Peng on 2.4. 2012				
Appendix VI	Planning assessments on the sustainable development planning and ecological conservation proposals for Pak Tam Au received from AF Architecture & Planning Consultants Ltd on 15.5.2013				

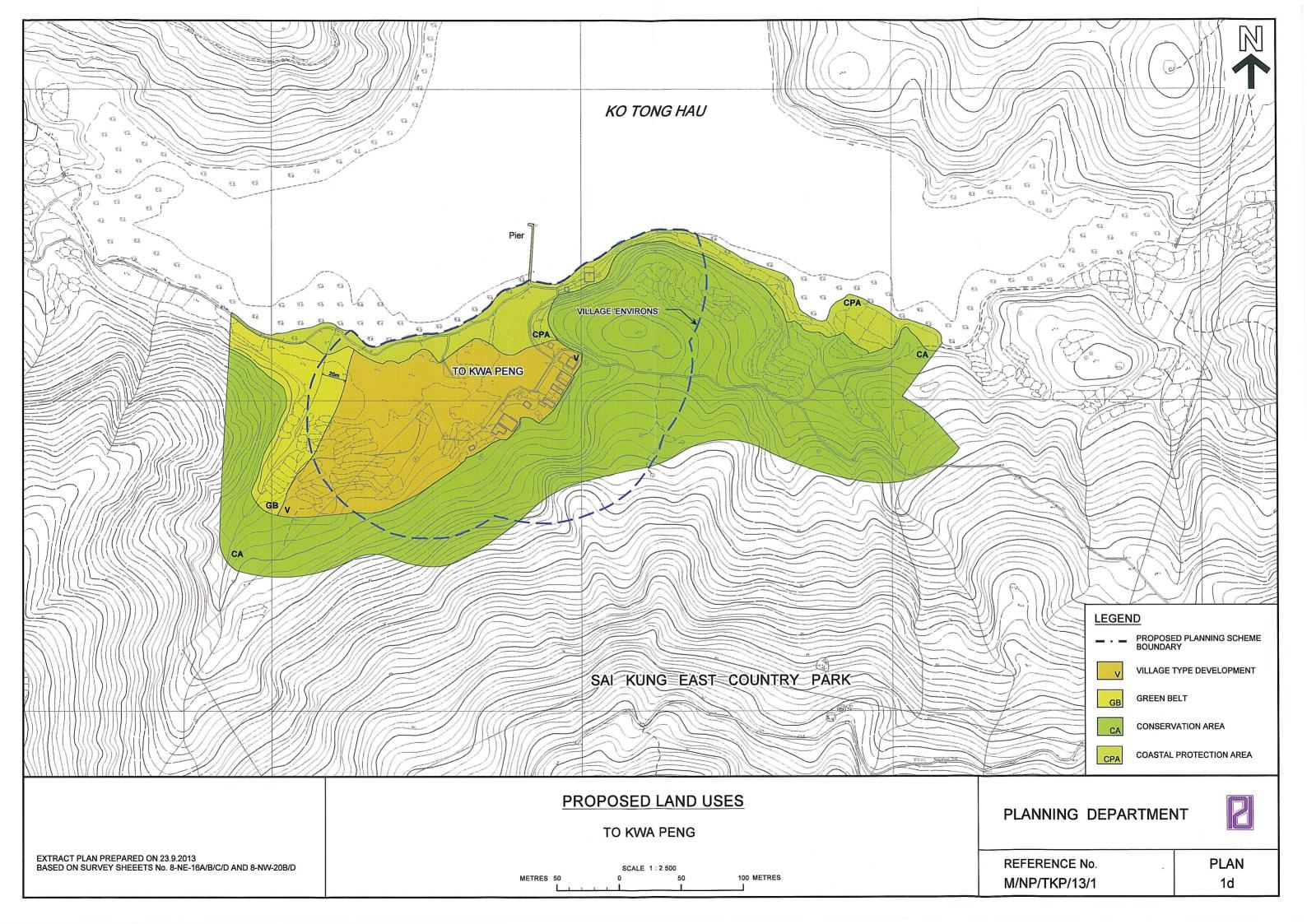
PLANNING DEPARTMENT OCTOBER 2013

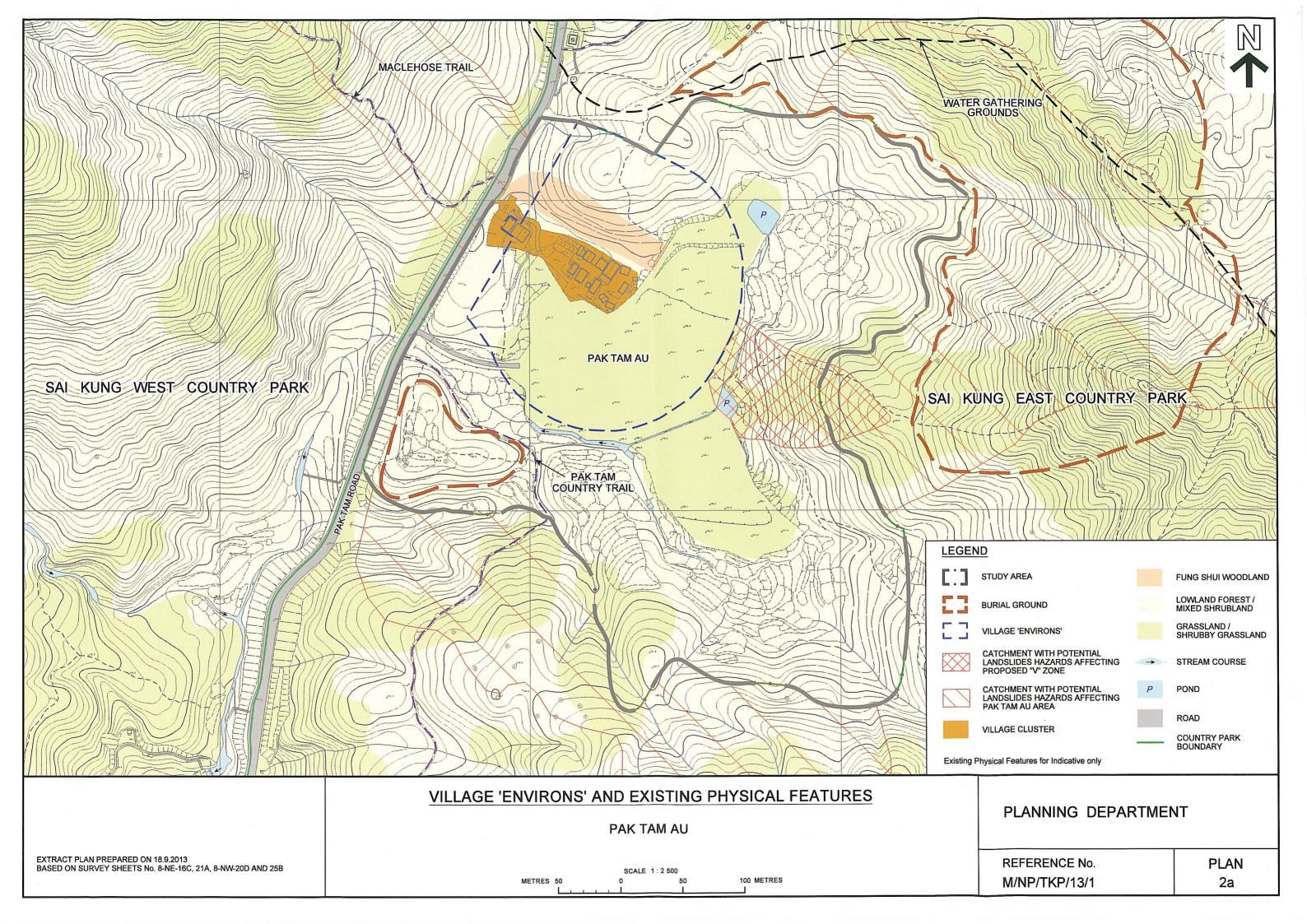
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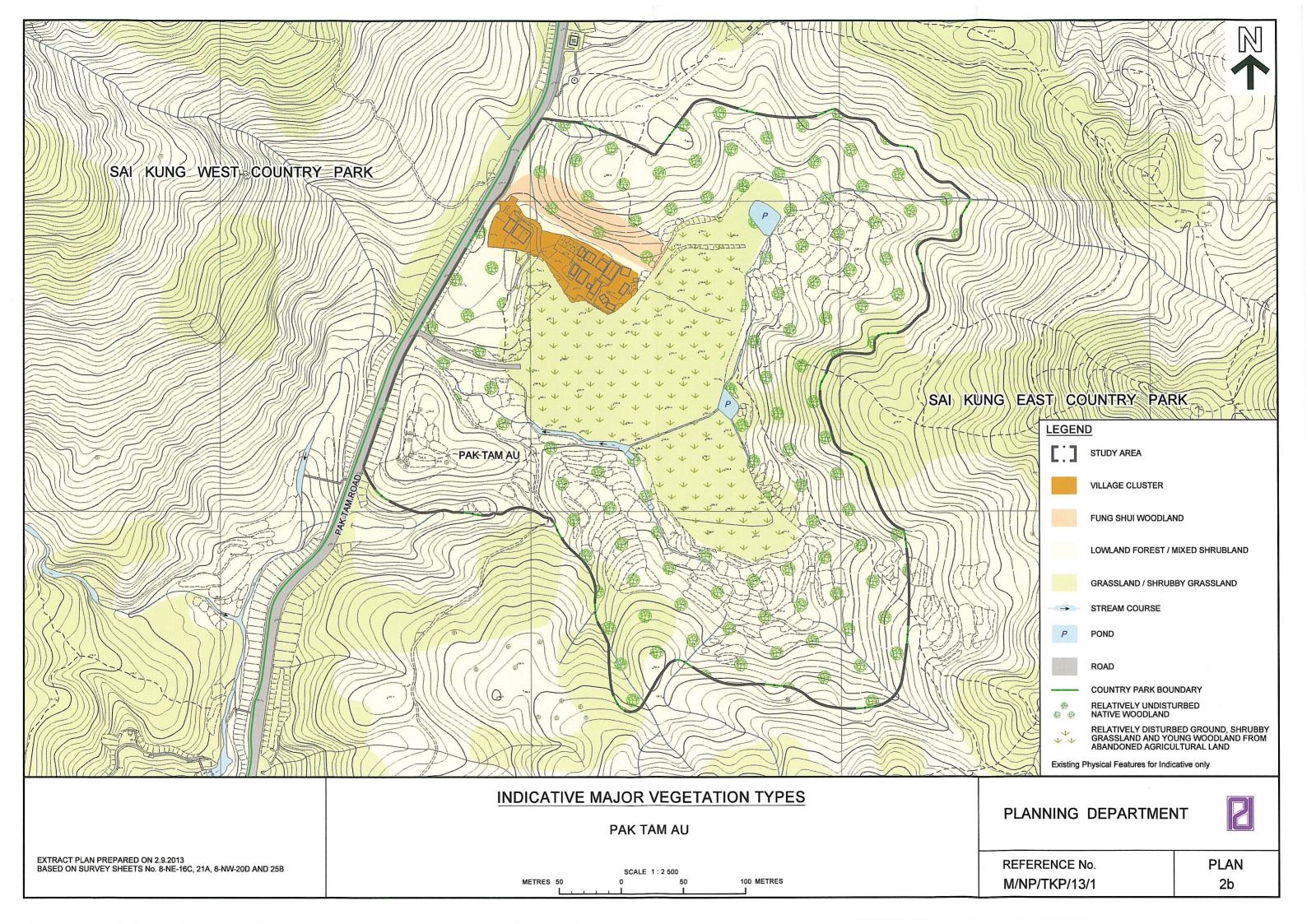


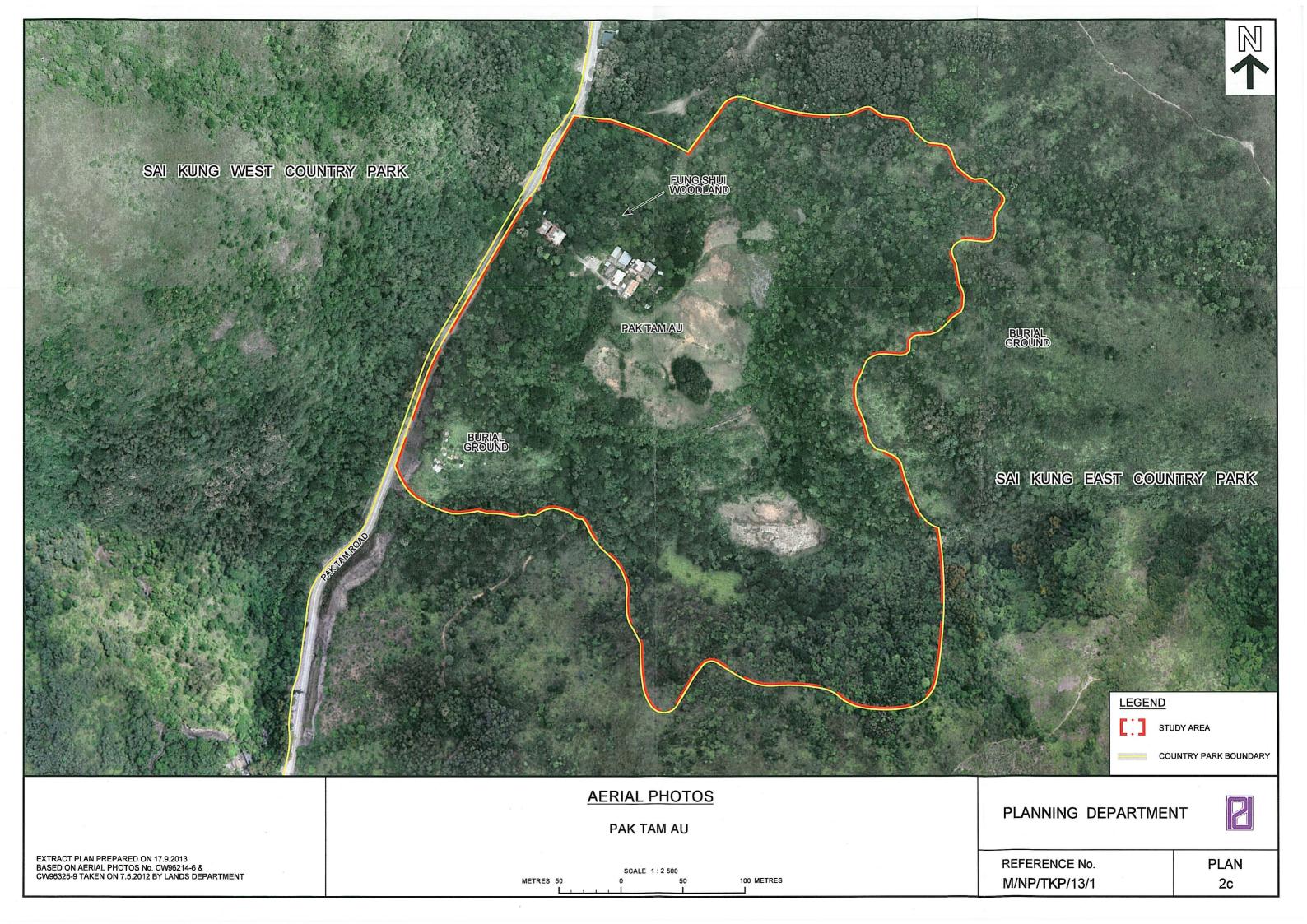


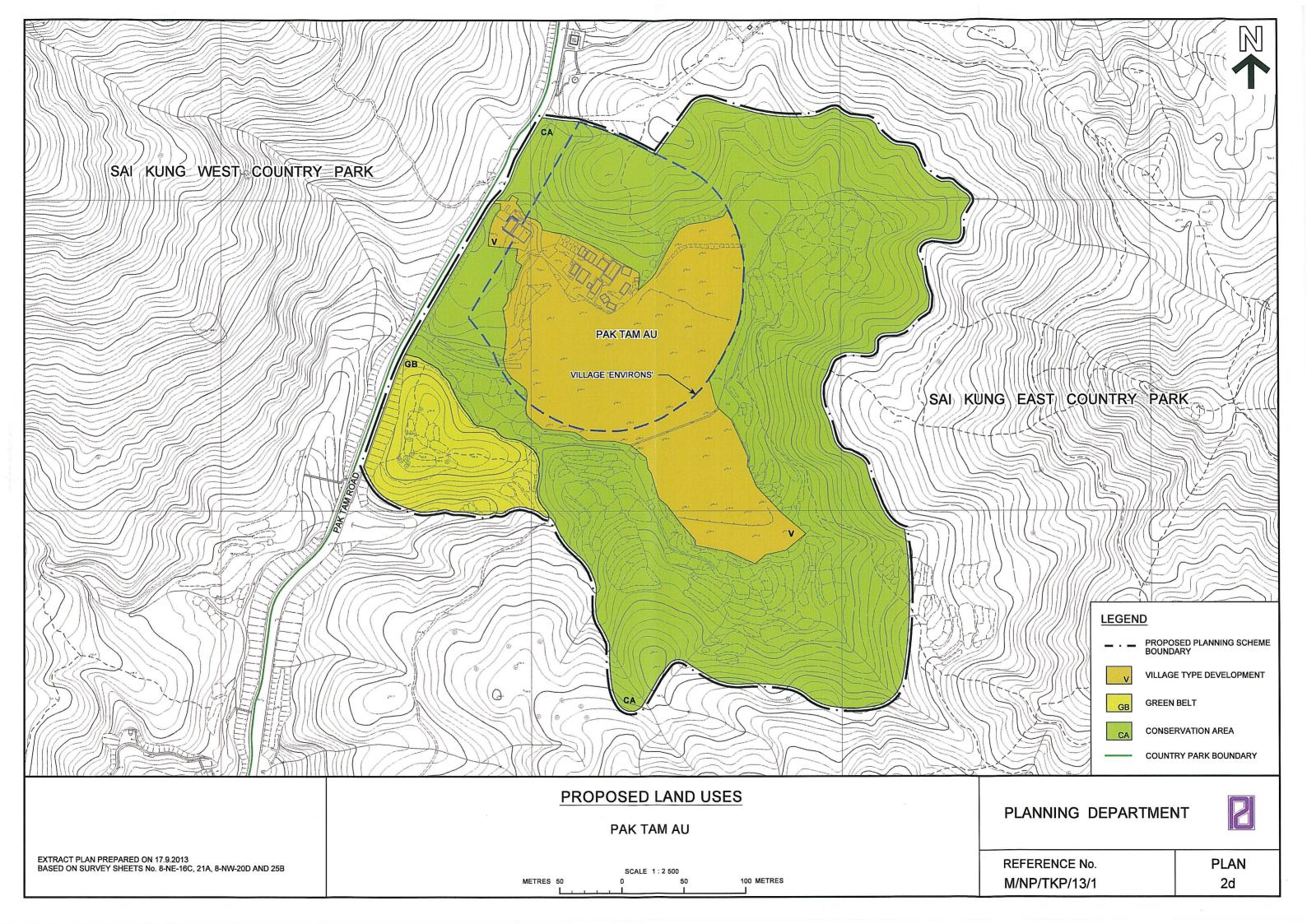


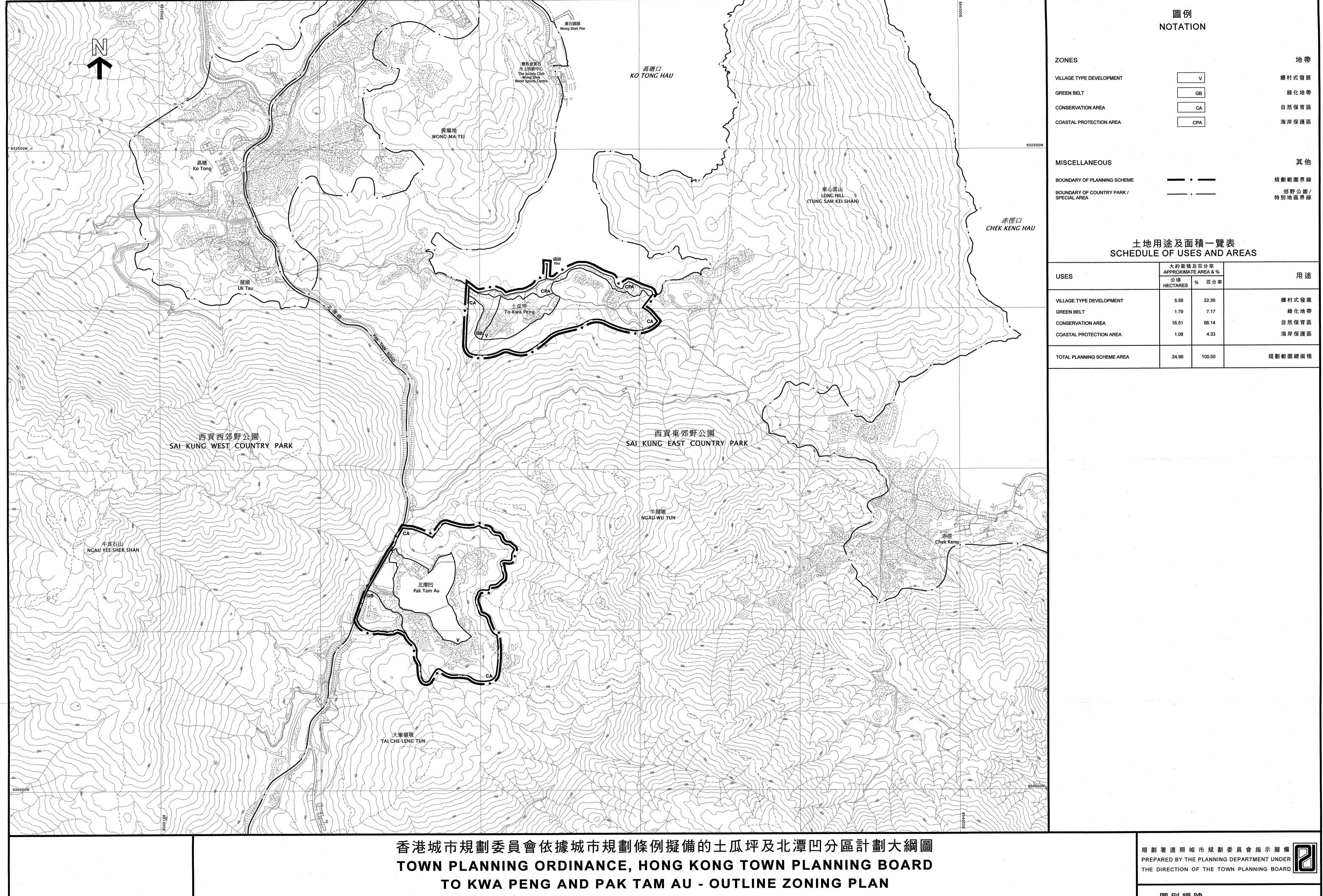












圖則編號

S/NE-TKP/B PLAN No.

DRAFT TO KWA PENG AND PAK TAM AU OUTLINE ZONING PLAN NO. S/NE-TKP/B

(Being a Draft Plan for the Purposes of the Town Planning Ordinance)

NOTES

(N.B. These form part of the Plan)

- (1) These Notes show the uses or developments on land falling within the boundaries of the Plan which are always permitted and which may be permitted by the Town Planning Board, with or without conditions, on application. Where permission from the Town Planning Board for a use or development is required, the application for such permission should be made in a prescribed form. The application shall be addressed to the Secretary of the Town Planning Board, from whom the prescribed application form may be obtained.
- (2) Any use or development which is always permitted or may be permitted in accordance with these Notes must also conform to any other relevant legislation, the conditions of the Government lease concerned, and any other Government requirements, as may be applicable.
- (3) No action is required to make the use of any land or building which was in existence immediately before the first publication in the Gazette of the notice of the draft development permission area plan conform to this Plan, provided such use has continued since it came into existence. Any material change of such use or any other development (except minor alteration and/or modification to the development of the land or building in respect of such use which is always permitted) must be always permitted in terms of the Plan or in accordance with a permission granted by the Town Planning Board.
- (4) A use or development of any land or building permitted under an earlier draft or approved plan including development permission area plan for the area and effected or undertaken during the effective period of that plan is always permitted under this Plan. Any material change of such use or any other development (except minor alteration and/or modification to the completed development of the land or building which is always permitted) must be always permitted in terms of the Plan or in accordance with a permission granted by the Town Planning Board.
- (5) Except to the extent that paragraph (3) or (4) applies, any use or development falling within the boundaries of the Plan and also within the boundaries of the draft development permission area plan, unless always permitted in terms of the Plan, shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft development permission area plan without permission from the Town Planning Board.
- (6) Except as otherwise specified by the Town Planning Board, when a use or material change of use is effected or a development or redevelopment is undertaken, as always permitted in terms of the Plan or in accordance with a permission granted by the Town Planning Board, all permissions granted by the Town Planning Board in respect of the site of the use or material change of use or development or redevelopment shall lapse.

- 2 - <u>S/NE-TKP/B</u>

- (7) Alignment of roads and boundaries between zones may be subject to minor adjustments as detailed planning proceeds.
- (8) The following uses or developments are always permitted on land falling within the boundaries of the Plan except (a) where the uses or developments are specified in Column 2 of the Notes of individual zones or (b) as provided in paragraph (9) in relation to areas zoned "Conservation Area" or "Coastal Protection Area":
 - (a) maintenance, repair or demolition of a building;
 - (b) provision, maintenance or repair of plant nursery, amenity planting, open space, rain shelter, refreshment kiosk, footpath, bus/public light bus stop or lay-by, cycle track, taxi rank, public utility pipeline, electricity mast, lamp pole, telephone booth, telecommunications radio base station, automatic teller machine and shrine;
 - (c) maintenance or repair of road, watercourse, nullah, sewer and drain;
 - (d) geotechnical works, local public works, road works, sewerage works, drainage works, environmental improvement works, marine related facilities and waterworks (excluding works on service reservoir) and such other public works co-ordinated or implemented by Government;
 - (e) rebuilding of New Territories Exempted House;
 - (f) replacement of an existing domestic building, i.e. a domestic building which was in existence on the date of the first publication in the Gazette of the notice of the draft development permission area plan, by a New Territories Exempted House; and
 - (g) provision, maintenance or repair of a grave of an indigenous New Territories villager or a locally based fisherman and his family members for which permission has been obtained from Government.
- (9) In areas zoned "Conservation Area" or "Coastal Protection Area",
 - (a) the following uses or developments are always permitted:
 - (i) maintenance or repair of plant nursery, amenity planting, sitting out area, rain shelter, refreshment kiosk, road, watercourse, nullah, public utility pipeline, electricity mast, lamp pole, telephone booth, shrine and grave;
 - (ii) geotechnical works, local public works, road works, sewerage works, drainage works, environmental improvement works, marine related facilities, waterworks (excluding works on service reservoir) and such other public works co-ordinated or implemented by Government; and
 - (iii) provision of amenity planting by Government; and

- 3 - <u>S/NE-TKP/B</u>

(b) the following uses or developments require permission from the Town Planning Board:

provision of plant nursery, amenity planting (other than by Government), sitting out area, rain shelter, refreshment kiosk, footpath, public utility pipeline, electricity mast, lamp pole, telephone booth and shrine.

(10) In any area shown as 'Road', all uses or developments except those specified in paragraphs (8)(a) to (8)(d) and (8)(g) above and those specified below require permission from the Town Planning Board:

road and on-street vehicle park.

(11) (a) Except in areas zoned "Conservation Area" or "Coastal Protection Area", temporary use or development of any land or building not exceeding a period of two months is always permitted provided that no site formation (filling or excavation) is carried out and that the use or development is a use or development specified below:

structures for carnivals, fairs, film shooting on locations, festival celebrations, religious functions or sports events.

- (b) Except as otherwise provided in paragraph (11)(a), and subject to temporary uses for open storage and port back-up purposes which are prohibited in areas zoned "Conservation Area" or "Coastal Protection Area", temporary use or development of any land or building not exceeding a period of three years requires permission from the Town Planning Board. Notwithstanding that the use or development is not provided for in terms of the Plan, the Town Planning Board may grant permission, with or without conditions, for a maximum period of three years, or refuse to grant permission.
- (c) Temporary use or development of land or building exceeding three years requires permission from the Town Planning Board in accordance with the terms of the Plan.
- (12) Unless otherwise specified, all building, engineering and other operations incidental to and all uses directly related and ancillary to the permitted uses and developments within the same zone are always permitted and no separate permission is required.
- (13) In these Notes, unless the context otherwise requires or unless as expressly provided below, terms used in the Notes shall have the meanings as assigned under section 1A of the Town Planning Ordinance.

"Existing building" means a building, including a structure, which is physically existing and is in compliance with any relevant legislation and the conditions of the Government lease concerned.

"New Territories Exempted House" means a domestic building other than a guesthouse or a hotel; or a building primarily used for habitation, other than a guesthouse or a hotel, the ground floor of which may be used as 'Shop and Services' or 'Eating Place', the building works in respect of which are exempted by a certificate of exemption under Part III of the Buildings Ordinance (Application to the New Territories) Ordinance (Cap. 121).

DRAFT TO KWA PENG AND PAK TAM AU OUTLINE ZONING PLAN NO. S/NE-TKP/B

Schedule of Uses

	<u>Page</u>
VILLAGE TYPE DEVELOPMENT	1
GREEN BELT	3
CONSERVATION AREA	5
COASTAL PROTECTION AREA	7

VILLAGE TYPE DEVELOPMENT

Column 1 Uses always permitted

Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board

Agricultural Use

Government Use (Police Reporting Centre,

Post Office only)

House (New Territories Exempted

House only)

On-Farm Domestic Structure

Religious Institution

(Ancestral Hall only)

Rural Committee/Village Office

Burial Ground Eating Place

Flat

Government Refuse Collection Point

Government Use (not elsewhere specified)#

Hotel (Holiday House only) House (not elsewhere specified)

Institutional Use (not elsewhere specified)#

Market

Place of Recreation, Sports or Culture

Private Club Public Clinic

Public Convenience

Public Transport Terminus or Station

Public Utility Installation #

Public Vehicle Park

(excluding container vehicle)

Religious Institution (not elsewhere specified)#

Residential Institution #

School#

Shop and Services

Social Welfare Facility #

Utility Installation for Private Project

In addition, the following uses are always permitted on the ground floor of a New Territories Exempted House:

Eating Place Library School Shop and Services

(Please see next page)

VILLAGE TYPE DEVELOPMENT (Cont'd)

Planning Intention

The planning intention of this zone is to designate both existing recognized villages and areas of land considered suitable for village expansion. Land within this zone is primarily intended for development of Small Houses by indigenous villagers. It is also intended to concentrate village type development within this zone for a more orderly development pattern, efficient use of land and provision of infrastructures and services. Selected commercial and community uses serving the needs of the villagers and in support of the village development are always permitted on the ground floor of a New Territories Exempted House. Other commercial, community and recreational uses may be permitted on application to the Town Planning Board.

Remarks

- (a) No new development, or addition, alteration and/or modification to or redevelopment of an existing building (except development or redevelopment to those annotated with #) shall result in a total development and/or redevelopment in excess of a maximum building height of 3 storeys (8.23m) or the height of the building which was in existence on the date of the first publication in the Gazette of the notice of the draft development permission area plan, whichever is the greater.
- (b) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.
- (c) Any diversion of streams or filling of pond, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

GREEN BELT

Column 1 Uses always permitted

Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board

Agricultural Use
Barbecue Spot
Government Use (Police Reporting
Centre only)
Nature Reserve
Nature Trail
On-Farm Domestic Structure
Picnic Area
Public Convenience
Tent Camping Ground
Wild Animals Protection Area

Animal Boarding Establishment Broadcasting, Television and/or Film Studio **Burial Ground** Columbarium (within a Religious Institution or extension of existing Columbarium Crematorium (within a Religious Institution or extension of existing Crematorium only) Field Study/Education/Visitor Centre Government Refuse Collection Point Government Use (not elsewhere specified) Holiday Camp House (other than rebuilding of New Territories Exempted House or replacement of existing domestic building by New Territories Exempted House permitted under the covering Notes) **Petrol Filling Station** Pier Place of Recreation, Sports or Culture **Public Transport Terminus or Station**

(Please see next page)

Public Utility Installation

GREEN BELT (Cont'd)

Column 1 Uses always permitted

Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board

(Please see next page)

GREEN BELT (Cont'd)

Planning Intention

The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone.

Remarks

Any diversion of streams, filling of land/pond or excavation of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

CONSERVATION AREA

Column 1 Uses always permitted

Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board

Agricultural Use (other than Plant Nursery) Nature Reserve Nature Trail On-Farm Domestic Structure Picnic Area Wild Animals Protection Area

Barbecue Spot
Field Study /Education/Visitor Centre
Government Refuse Collection Point
Government Use (not elsewhere specified)
House (Redevelopment only)
Public Convenience
Public Utility Installation
Radar, Telecommunications Electronic
Microwave Repeater, Television
and/or Radio Transmitter Installation

Planning Intention

This zoning is intended to protect and retain the existing natural landscape, ecological or topographical features of the area for conservation, educational and research purposes and to separate sensitive natural environment such as Country Park from the adverse effects of development.

There is a general presumption against development in this zone. In general, only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted.

(Please see next page)

CONSERVATTION AREA (Cont'd)

Remarks

- (a) No redevelopment, including alteration and/or modification, of an existing house shall result in a total redevelopment in excess of the plot ratio, site coverage and height of the house which was in existence on the date of the first publication in the Gazette of the notice of the draft development permission area plan.
- (b) Any diversion of streams, filling of land/pond or excavation of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes, shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

COASTAL PROTECTION AREA

Column 1 Uses always permitted

Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board

Agricultural Use (other than Plant Nursery) Nature Reserve Nature Trail On-Farm Domestic Structure Wild Animals Protection Area

Field Study/Education/Visitor Centre
Government Use
House (Redevelopment only)
Public Convenience
Public Utility Installation
Radar, Telecommunications Electronic
Microwave Repeater, Television
and/or Radio Transmitter Installation

Planning Intention

This zoning is intended to conserve, protect and retain the natural coastlines and the sensitive coastal natural environment, including attractive geological features, physical landform or area of high landscape, scenic or ecological value, with a minimum of built development. It may also cover areas which serve as natural protection areas sheltering nearby developments against the effects of coastal erosion.

There is a general presumption against development in this zone. In general, only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted.

(Please see next page)

COASTAL PROTECTION AREA (Cont'd)

Remarks

- (a) No redevelopment, including alteration and/or modification, of an existing house shall result in a total redevelopment in excess of the plot ratio, site coverage and height of the house which was in existence on the date of the first publication in the Gazette of the notice of the draft development permission area plan.
- (b) Any diversion of streams, filling of land/pond or excavation of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes, shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

Appendix III

DRAFT TO KWA PENG AND PAK TAM AU OUTLINE ZONING PLAN NO. S/NE-TKP/B

EXPLANATORY STATEMENT

DRAFT TO KWA PENG AND PAK TAM AU OUTLINE ZONING PLAN NO. S/NE-TKP/B

EXPLANATORY STATEMENT

CONTENTS					
1.	INTRODUCTION				
2.	AUTHORITY FOR THE PLAN AND PROCEDURE				
3.	OBJECT OF THE PLAN				
4.	NOTES OF THE PLAN				
5.	THE PLANNING SCHEME AREA				
6.	POPULATION				
7.	OPPORTUNITIES AND CONSTRAINTS				
8.	GENERAL PLANNING INTENTION				
9.	. LAND-USE ZONINGS				
	9.1 Village Type Development	9			
	9.2 Green Belt	9			
	9.3 Conservation Area	10			
	9.4 Coastal Protection Area	11			
10.	COMMUNICATIONS	12			
11.	UTILITY SERVICES				
12.	IMPLEMENTATION				
13.	PLANNING CONTROL				

DRAFT TO KWA PENG AND PAK TAM AU OUTLINE ZONING PLAN NO. S/NE-TKP/B

(Being a Draft Plan for the Purposes of the Town Planning Ordinance)

EXPLANATORY STATEMENT

Note: For the purposes of the Town Planning Ordinance, this statement shall not be deemed to constitute a part of the Plan.

1. <u>INTRODUCTION</u>

This Explanatory Statement is intended to assist an understanding of the draft To Kwa Peng and Pak Tam Au Outline Zoning Plan (OZP) No. S/NE-TKP/B. It reflects the planning intention and objectives of the Town Planning Board (the Board) for various land-use zonings of the plan.

2. <u>AUTHORITY FOR THE PLAN AND PROCEDURE</u>

- 2.1 On 13 December 2010, under the power delegated by the Chief Executive, the Secretary for Development directed the Board, under section 3(1)(b) of the Town Planning Ordinance (the Ordinance), to prepare a Development Permission Area (DPA) Plan for the To Kwa Peng and Pak Tam Au area.
- 2.2 On 7 January 2011, the draft To Kwa Peng and Pak Tam Au DPA Plan No. DPA/NE-TKP/1 was exhibited for public inspection under section 5 of the Ordinance. During the two-month exhibition period, 206 representations were received. On 18 March 2011, the Board published the representations for public comment and in the first three weeks of the publication period, 227 comments were received. After giving consideration to the representations and comments on 15 July 2011, the Board decided not to propose any amendment to the draft DPA plan to meet the representations.
- 2.3 On 7 February 2012, the Chief Executive in Council (CE in C), under section 9(1)(a) of the Ordinance, approved the draft To Kwa Peng and Pak Tam Au DPA Plan, which was subsequently renumbered as DPA/NE-TKP/2. On 17 February 2012, the approved To Kwa Peng and Pak Tam Au DPA Plan No. DPA/NE-TKP/2 was exhibited for public inspection under section 9(5) of the Ordinance.
- On 30 January 2013, under the power delegated by the Chief Executive, the Secretary for Development directed the Board, under section 3(1)(a) of the Ordinance, to prepare an OZP to cover the To Kwa Peng and Pak Tam Au area.
- 2.5 On XX XXXX 2013, the draft To Kwa Peng and Pak Tam Au OZP No. S/NE-TKP/B (the Plan) was exhibited for public inspection under section 5 of the Ordinance.

- 2 - <u>S/NE-TKP/B</u>

3. OBJECT OF THE PLAN

- 3.1 The object of the Plan is to indicate the broad land-use zonings for the area of To Kwa Peng and Pak Tam Au so that development and redevelopment within the area of To Kwa Peng and Pak Tam Au can be put under statutory planning control. It also provides the planning framework for preparing more detailed non-statutory plans which form the basis for public works planning and site reservation for various uses.
- 3.2 The Plan is to illustrate the broad principles of development and planning control only. It is a small-scale plan and the road alignments and boundaries between the land-use zones may be subject to minor alterations as detailed planning proceeds.

4. NOTES OF THE PLAN

- 4.1 Attached to the Plan is a set of Notes which shows the types of uses or developments which are always permitted within the Planning Scheme Area and in particular zones and which may be permitted by the Board, with or without conditions, on application. The provision for application for planning permission under section 16 of the Ordinance allows greater flexibility in land-use planning and control of development to meet the changing needs.
- 4.2 For the guidance of the general public, a set of definitions that explains some of the terms used in the Notes may be obtained from the Technical Services Division of the Planning Department and can be downloaded from the Board's website at http://www.info.gov.hk/tpb/.

5. THE PLANNING SCHEME AREA

5.1 The Planning Scheme Area (the Area), which comprises two sub-areas, namely the To Kwa Peng area (about 9.77 hectares) and the Pak Tam Au area (about 15.19 hectares), covers a total area of about 24.96 hectares. The Area is encircled by the Sai Kung East Country Park in the east and Pak Tam Road and Sai Kung West Country Park in the west. The boundary of the Area is shown by a heavy broken line on the Plan.

5.2 To Kwa Peng

- 5.2.1 The To Kwa Peng area is located along the natural coast overlooking Ko Tong Hau at the north-western edge of the Sai Kung East Country Park about 12 km to the north-east of Sai Kung Town. It is accessible by a walking trail off Pak Tam Road or along the coast from the west and by marine access off a small pier fronting Ko Tong Hau and Long Harbour.
- 5.2.2 The To Kwa Peng area is rural in character comprising mainly fallow agricultural land surrounded by shrubs and woodland. While To Kwa Peng is a recognized village, the area is basically uninhabited with some

- 3 - <u>S/NE-TKP/B</u>

ruins and a row of about 7 village houses in dilapidated condition. To the west of these houses is a stretch of fallow agricultural land. The surrounding areas have some signs of previous excavation and site formation works but the area has regenerated with scattered wild grasses and shrubs. There are graves located to the south of the hill along the southern boundary of the area.

There is a natural stream near the western boundary of the To Kwa Peng area flowing from south to north towards Ko Tong Hau. Estuarine mangrove and mudflat habitats are found along the coast fronting Ko Tong Hau. According to the Agriculture, Fisheries and Conservation Department, uncommon species of mangroves, *Heritiera littoralis* (銀葉樹) and *Lumnitzera racemosa* (欖季) and seagrass, *Halophila minor* (小喜鹽草) are found in this mudflat.

5.3 Pak Tam Au

- 5.3.1 The Pak Tam Au area, which falls entirely within the upper indirect water gathering ground, is located along Pak Tam Road at the western edge of the Sai Kung East Country Park about 500m to the south of the To Kwa Peng area. It is accessible by vehicle via Pak Tam Road and by walking trails connected to the Sai Kung East Country Park. There are bus and mini bus routes operating between Sai Kung Public Pier and Pak Tam Au.
- 5.3.2 With a scenic setting, the area is rural in character comprising mainly fallow agricultural land at the centre surrounded by shrubs and woodland. Pak Tam Au is a recognized village with a small cluster of village houses up to three storeys in height in fair to good condition. A short local track connects these houses with Pak Tam Road.
- 5.3.3 The central part of the area comprises pockets of terraced fallow agricultural land overgrown with grass and shrubs surrounded to its north and south by slopes covered with woodland and dense natural vegetation. The woodland forms part of the well-established vegetation in the Sai Kung East Country Park. Some graves are found at the small hill at the south-western corner of the area. There is a partially trained stream running across the central portion of the area from the slope in the east towards the west.
- 5.3.4 The tranquil rural character and woodlands of Pak Tam Au has a high landscape value which complements the overall natural quality and the landscape beauty of the surrounding Sai Kung East and Sai Kung West Country Parks. The area, with a section of Maclehose Trail and Pak Tam Country Trail running across its northern and southern regions, is a popular spot for hikers.

- 4 - <u>S/NE-TKP/B</u>

6. **POPULATION**

According to the 2011 Population Census, the total population of the Area was below 50 persons. It is expected that the total planned population of the Area would be 790 persons mainly attributed to the village expansion.

7. OPPORTUNITIES AND CONSTRAINTS

7.1 Opportunities

7.1.1 Conservation and Natural Landscape

Amid the Sai Kung East Country Park, the To Kwa Peng area and the Pak Tam Au area have high scenic and landscape value forming part of the wider natural system of the Sai Kung countryside comprising a diversity of woodland, hillsides shrubland, abandoned agricultural land, stream, freshwater marsh, and mangrove, which support a diversity of flora and fauna. Due to high quality scenery and landscape along the section of Maclehose Trail and Pak Tam Country Trail at the Pak Tam Au area, and the location of the To Kwa Peng area along the waterfront overlooking Ko Tong Hau, the natural environment of the Area is worthy of conservation while the scale of the village development should be compatible with the rural setting and surrounding landscape.

7.1.2 Tourism Potential

- 7.1.2.1 The To Kwa Peng area is located to south of Wong Shek Pier connected by a hiking trail. There is a bus terminus at Wong Shek Pier which is both a popular tourist destination and a transport connection point between Hong Kong's urban area and outlying places (such as Tap Mun, Wan Tsai and Chek Keng, etc.). The Jockey Club Wong Shek Water Sports Centre, south of Wong Shek Pier, is popular for various types of waters sports activities, such as sailing, windsurfing and canoeing.
- 7.1.2.2 The Pak Tam Au area, with a section of Maclehose Trail and Pak Tam Country Trail running across its northern and southern regions, is a popular spot for hikers as it is located between Chek Keng and Cheung Sheung connected by Maclehose Trail. Also, the area is connected to the Lady Maclehose Holiday Village located to its further south by Pak Tam Road or Pak Tam Country Trail.

- 5 - <u>S/NE-TKP/B</u>

7.2 <u>Constraints</u>

7.2.1 <u>Transportation (Road Access)</u>

- 7.2.1.1 The To Kwa Peng area is located in a remote area without vehicular access. Currently, it is only accessible by a footpath off Pak Tam Road at a distance of over 700 m through Sai Kung East Country Park or by sea at the small pier at the north of the area.
- 7.2.1.2 The Pak Tam Au area is accessible via Pak Tam Road and walking trails connecting to the Country Park to the south and north of the area. At present, Pak Tam Road is a restricted road and vehicles entering it have to apply permits from relevant departments.

7.2.2 Geotechnical

Land to the south, east and west of the To Kwa Peng area and land to the east, northwest and south of the Pak Tam Au area are bounded by steep natural hillslopes, and may be affected by potential natural terrain landslide hazards. For new development in these areas, especially those located near the boundary, natural terrain hazard study would be required and suitable mitigation measures should be provided, if necessary, as part of the development or re-development.

7.2.3 Ecological Significance

- 7.2.3.1 The Area forms an integral part of the natural system of the natural woodlands in the adjoining Sai Kung East Country Park with a wide spectrum of natural habitats including mature woodland, hillside shrubland, fallow agricultural land and streamcourses. Estuarine mangrove and mudflat habitats are also found in the To Kwa Peng area along the coast fronting Ko Tong Hau.
- To Kwa Peng is mainly covered by wooded areas, bare ground 7.2.3.2 and village houses. The wooded areas adjacent to the Sai Kung Country Park are relatively undisturbed ecologically-linked to the natural habitats therein. The fung shui woodland behind the village remains largely intact with a dense canopy. A high diversity of flora species (96 species), including the protected Aquilaria sinensis (土沉香) and Pavetta hongkongensis (香港大沙葉), has been recorded. Aquilaria sinensis (土沉香) has also been recorded in the woodland at the knoll northeast of the fung shui woodland. Though most of the species recorded in the subject site are common and widespread, To Kwa Peng has been identified as a butterfly hotspot with over 40% of the local species recorded, including the very rare Choaspes hemixanthus (半黃綠弄蝶),

- 6 - <u>S/NE-TKP/B</u>

and the rare Zographetus satwa (黃裳腫脈弄蝶) and Abraximorpha davidii (白弄蝶). The natural mudflat on the coast front supports dense mangrove stands comprising seven species of mangroves, including the uncommon Heritiera littoralis (銀葉樹) and Lumnitzera racemosa (欖李). Two seagrass species, Halophila minor (小喜鹽草) and H. ovalis (喜鹽草) have also been recorded at the mudflat. The area is one of the most species-rich sites in Hong Kong with respect to mangrove fauna, with a total of 52 species recorded.

- 7.2.3.3 In addition, some wetland plants, such as *Kandelia canel* (水 筆仔), *Heritiera littoralis* (銀葉樹), *Glochidion zeylanicum* (香港算盤子), *Excoecaria agallocha* (海漆) and *Cerbera manghas* (海芒果), etc., are found along the east coast of To Kwa Peng and along two sides of the existing footpath.
- 7.2.3.4 Pak Tam Au is mainly covered by wooded areas, bare ground and village houses. A partially disturbed *fung shui* woodland is found behind the village with a moderately high diversity of flora species (62 species), including the protected *Pavetta hongkongensis* (香港大沙葉). The well-wooded periphery of the area is ecologically-linked to the wide stretch of natural vegetation in the Sai Kung East Country Park though most of the fauna recorded therein are common and widespread species.

7.2.4 <u>Landscape Character</u>

- With reference to the Landscape Value Mapping of Hong 7.2.4.1 Kong (2005), the To Kwa Peng area is of rural landscape character which comprises mainly fallow agricultural land and surrounded by shrubs and woodland. Mudflats and significant mangroves define the larger northern cove of To Kwa Peng. A natural stream near the western boundary of the To Kwa Peng area is flowing from south to north towards Ko Tong Hau. There is a recognized small village with few small houses and fallow agricultural lands near to the hillsides slope toe but without direct access road to connect. The To Kwa Peng area is rated with "High (qualified)" landscape value that the unique coastal landscape creates an extreme shelter surrounded with vegetated knolls. However, some areas have already disturbed by vegetation clearance, which has regenerated with wild grasses and shrubs. Due to the high landscape sensitivity of the area and its remoteness from existing roads and other development, any large scale development of the area should be avoided.
- 7.2.4.2 The enclosed, tranquil and rural character and woodlands of the Pak Tam Au area has a high landscape value which complements the overall natural quality and the landscape

- 7 - <u>S/NE-TKP/B</u>

beauty of the surrounding Sai Kung East and Sai Kung West Country Parks. Vegetation comprises woodland and scrub on lower valley sides and the woodland forms part of well-established vegetation in the Sai Kung East Country Park. The recognized Pak Tam Au village comprises pockets of terraced fallow agricultural lands surrounded by the vegetated slope with some areas already disturbed by vegetation clearance. The Pak Tam Au area is rated with "High" landscape value. The landscape comprises a juxtaposition of distinct landscape character areas. Due to the high landscape sensitivity and the topography of the area and that it is away from other development, any large scale development of the area should be avoided.

7.2.5 Burial Grounds

A large piece of burial grounds found at the southwestern part of the Pak Tam Au area is not suitable for any development.

7.2.6 Water Gathering Ground

The whole of the Pak Tam Au area is within the upper indirect water gathering ground (WGG). To prevent contamination of waters which are designated for abstraction for potable water supply, any proposed development that will result in a material increase in pollution effect will not be encouraged.

7.2.7 Sewerage

There is no existing public sewer nor any committed/ planned sewerage project planned for the Area. At present, on-site discharge system such as septic tanks and soakaway pits are generally used in traditional villages. They would only satisfy the requirements of individual lots. Any increase in population or number of visitors to the Area or further recreation/ residential developments will require additional facilities.

7.2.8 <u>Infrastructure and Utility Services</u>

The Area is provided with electricity and telephone services. Potable water supply has been provided to the existing facilities and villagers of the Area.

8. GENERAL PLANNING INTENTION

8.1 The Area forms an integral part of the natural system of the natural woodlands in the adjoining Sai Kung East Country Park with a wide spectrum of natural habitats including, *inter alia*, mature woodland, hillside shrubland, streamcourses, estuarine mangrove and mudflat, etc., which support some rare/uncommon flora and fauna of the Area and should be preserved and protected. The general planning intention of the Area is to protect its high conservation and landscape value which complements the overall naturalness

- 8 - <u>S/NE-TKP/B</u>

- and the landscape beauty of the surrounding Sai Kung East and Sai Kung West Country Parks.
- 8.2 Apart from the environmental and ecological considerations, development in the Area is constrained by limited transport and infrastructural provisions. It is also intended to consolidate village so as to avoid undesirable disturbances to the natural environment and overtaxing the limited infrastructure in the Area.

9. <u>LAND-USE ZONINGS</u>

- 9.1 "Village Type Development" ("V"): Total Area 5.58 ha
 - 9.1.1 The planning intention of this zone is to designate both existing recognized villages and areas of land considered suitable for village expansion. Land within this zone is primarily intended for development of Small Houses by indigenous villagers. It is also intended to concentrate village type development within this zone for a more orderly development pattern, efficient use of land and provision of infrastructures and services. Selected commercial and community uses serving the needs of the villagers and in support of the village development are always permitted on the ground floor of a New Territories Exempted House. Other commercial, community and recreational uses may be permitted on application to the Town Planning Board.
 - 9.1.2 The boundaries of the "V" zone are drawn up having regard to the village 'environs', the number of outstanding Small House applications, Small House demand forecast, local topography and site constraints. Areas of difficult terrain, dense vegetation, stream courses and burial grounds have been avoided as far as possible. To Kwa Peng Village and Pak Tam Au Village are two recognized villages in the Area.
 - 9.1.3 No new development, or addition alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum building height of 3 storeys (8.23 m) or the height of the building which was in existence on the date of first publication in the Gazette of the notice of the draft DPA plan, whichever is the greater. Application for minor relaxation of these restrictions would be considered by the Board based on individual merits, taking into account site constraints, innovative architectural design and planning merits that would enhance the amenity of the locality.
 - 9.1.4 Some areas zoned "V" are overlooked by steep natural hillsides and may be affected by potential natural terrain landslide hazards. For future development in these areas, the developer(s) may be required to carry out natural terrain hazard study and provide suitable hazard mitigation measures, if found necessary, as part of the development.

- 9 - <u>S/NE-TKP/B</u>

- 9.1.5 In accordance with the Environmental, Transport and Works Bureau's Circular (Works) No. 5/2005, under the current Technical administrative practice, development proposals/submissions that may affect natural streams / rivers, the approving / processing authorities at various stages of the development should consult and collate comments from the Agriculture, Fisheries and Conservation Department and relevant authorities and incorporate relevant comments/advice as conditions of approval wherever possible. Accordingly, Lands Department when processing Small House grant and applications in close proximity to existing stream courses, should consult concerned departments including the Agriculture, Fisheries and Conservation Department and the Planning Department to ensure that all relevant departments would have adequate opportunity to review and comment on the applications.
- 9.1.6 As diversion of streams or filling of pond may cause adverse drainage impacts on the adjacent areas and adverse impacts on the natural environment, permission from the Board is required for such activities.
- 9.1.7 There is neither existing nor proposed public sewer in the Area. For Small House development, the design and construction of such systems need to comply with relevant standards and regulations, such as Environmental Protection Department (EPD)'s Practice Note for Professional Person (ProPECC PN) 5/93, for the protection of the water quality of the Area.
- 9.1.8 In addition, the Pak Tam Au area also falls entirely within the upper indirect water gathering ground. For any village type development within the "V" zone, it should be demonstrated that the water quality within water gathering ground will not be affected by the proposals. In general, the use of septic tank and soakaway systems for sewage treatment and disposal is considered as an unacceptable means for new village developments located in water gathering grounds. There should be demonstrably effective means (such as proper waste water treatment plant) to ensure that the effluent water quality is acceptable to concerned government departments.

9.2 "Green Belt" ("GB"): Total Area 1.79 ha

9.2.1 The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone.

- 10 - <u>S/NE-TKP/B</u>

- 9.2.2 The sites zoned "GB" include the vegetated hillslopes, natural stream and woodland adjoining the west of the "V" zone of the existing main village cluster of To Kwa Peng and the vegetated hillslopes and woodland at the southwest part of Pak Tam Au. These "GB" zones mainly comprise relatively disturbed, young woodland and shrubby grassland developed from abandoned agricultural land, which provide a buffer between the development and conservation areas or Country Park area.
- 9.2.3 There is a traditional burial ground at the southwestern part of the Pak Tam Au area which is within this zone. It has been in existence for many years, which are considered as an existing use and intended for burial places of deceased indigenous villagers in the area. To respect the local ritual and tradition, burial activities within this zone are generally tolerated
- 9.2.4 There is a general presumption against development within this zone. Development in this zone will be strictly controlled. Development proposals will be considered by the Board on individual merits taking into account the relevant Town Planning Board Guidelines.
- 9.2.5 As diversion of streams, filling of land/pond or excavation of land may cause adverse drainage impacts on the adjacent areas and adverse impacts on the natural environment, permission from the Board is required for such activities.

9.3 "Conservation Area" ("CA"): Total Area 16.51 ha

9.3.1 This zoning is intended to protect and retain the existing natural landscape, ecological or topographical features of the area for conservation, educational and research purposes and to separate sensitive natural environment such as Country Park from the adverse effects of development. There is a general presumption against development in this zone. In general, only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted.

- 11 - S/NE-TKP/B

- The "CA" zoning, which mainly comprises relatively undisturbed 9.3.2 native woodland ecologically-linked to the natural habitats in the adjacent Sai Kung East Country Park, covers the fung shui woods behind the villages and the adjoining wooded areas. In To Kwa Peng, a high diversity of flora species (96 species), including the protected Aquilaria sinensis (十沉香) and Pavetta hongkongensis (香港大沙葉), has been recorded. Aquilaria sinensis (十沉香) has also been recorded in the woodland at the knoll northeast of the fung shui woodland. Though most of the species recorded in the subject site are common and widespread, To Kwa Peng has been identified as a butterfly hotspot with over 40% of the local species recorded, including the very rare Choaspes hemixanthus (半黃綠弄蝶), and the rare Zographetus satwa (黃裳腫脈弄蝶) and Abraximorpha davidii (白弄蝶). For Pak Tam Au, a partially disturbed fung shui woodland is found behind the village with a moderately high diversity of flora species (62 species), including the protected Pavetta hongkongensis (香港大沙葉).
- 9.3.3 New residential development is not permitted under this zone. Redevelopment of existing houses may be permitted on application to the Board. The redevelopment of existing houses shall not result in a total redevelopment in excess of the plot ratio, site coverage and height of the house which was in existence on the date of the first publication of the DPA Plan.
- 9.3.4 Diversion of streams, filling of land/pond or excavation of land may cause adverse drainage impacts on adjacent areas and adverse impacts on the natural environment. In view of the conservation value of the area within this zone, permission from the Board is required for such activities.

9.4 "Coastal Protection Area" ("CPA"): Total Area 1.08 ha

9.4.1 This zoning is intended to conserve, protect and retain the natural coastlines and the sensitive coastal natural environment, including attractive geological features, physical landform or area of high landscape, scenic or ecological value, with a minimum of built development. It may also cover areas which serve as natural protection areas sheltering nearby developments against the effects of coastal erosion. There is a general presumption against development in this zone. In general, only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted.

- 12 - <u>S/NE-TKP/B</u>

- 9.4.2 This zone covers the coastal areas of To Kwa Peng along Ko Tong Hau, where estuarine mangrove and mudflat habitats locate. The natural mudflat on the coast is one of the most species-rich sites in Hong Kong with respect to mangrove fauna. Some uncommon species of mangroves, Heritiera littoralis(銀葉樹) and Lumnitzera racemosa (欖李) and seagrass, Halophila minor (小喜鹽草) are found in this mudflat. Some wetland plants, such as Kandelia canel (水筆仔), Heritiera littoralis (銀葉樹), Glochidion zeylanicum (香港算盤子), Excoecaria agallocha (海漆) and Cerbera manghas (海芒果), etc., are found along the east coast of To Kwa Peng and along two sides of the existing footpath.
- 9.4.3 New residential development is not permitted under this zone. Redevelopment of existing houses may be permitted on application to the Board. The redevelopment of existing houses shall not result in a total redevelopment in excess of the plot ratio, site coverage and height of the house which was in existence on the date of the first publication of the DPA Plan.
- 9.4.4 Diversion of streams, filling of land/pond or excavation of land may cause adverse drainage impacts on adjacent areas and adverse impacts on the natural environment. In view of the conservation value of the area within this zone, permission from the Board is required for such activities.

10. COMMUNICATIONS

10.1 Road/Transport Network

- 10.1.1 The To Kwa Peng area is not served by any vehicular access and is only accessible by a walking trail connecting to Pak tam Road and along the coast to the west towards Wong Shek Pier. There is marine access off a small pier located at the north of the area. Visitors often charter small vessels off Wong Shek Pier to land at this pier.
- 10.1.2 The Pak Tam Au area is accessible via Pak Tam Road and walking trails connecting to the Country Park to the south and north of the area.

11. <u>UTILITY SERVICES</u>

The Area is provided with electricity and telephone services. Potable water supply has been provided to the existing facilities and villagers of the areas. There are no sewerage and drainage systems.

- 13 - <u>S/NE-TKP/B</u>

12. IMPLEMENTATION

- 12.1 The Plan provides a broad land-use framework for development control and implementation of planning proposals for the Area. More detailed plans will be prepared as a basis for public works planning and private developments.
- 12.2 At present there is no overall programme for the provision of infrastructure within the Area. The implementation process will be gradual and may stretch over a long period of time depending on the availability of resources. It will be undertaken through the participation of both the public and private sectors.
- 12.3 Notwithstanding the above, minor improvement works, e.g. access improvement and laying of utility services will be implemented through the Public Works Programme and the Rural Public Works as and when resources are available. Private developments will be effected principally through private sector initiatives to develop or redevelop their properties in accordance with the zoned uses indicated on the Plan, provided that their proposals meet Government requirements.

13. PLANNING CONTROL

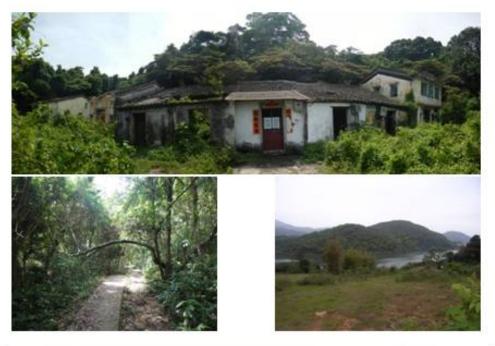
- 13.1 The types of permitted developments and uses on land within the Area are listed in the Notes to the Plan. Unless otherwise specified, all building, engineering and other operations incidental to and all uses directly related and ancillary to the permitted developments and uses within the same zone are always permitted and no separate permission is required.
- 13.2 Uses of land or building which were in existence immediately before the first publication in the Gazette of the notice of the draft DPA Plan and which are not in compliance with the terms of the Plan may have adverse impacts on the environment, drainage and traffic of the Area. Although no action is required to make such use conform to this Plan, any material change of such use or any other development (except minor alteration and/or modification to the development of the land or building in respect of such use which is always permitted) must be always permitted in terms of the Plan or, if permission is required, in accordance with a permission granted by the Board. The Board will consider these applications on their individual merits. Those alteration and/or modification works which may lead to an environmental improvement or upgrading to the Area may be considered favourably by the Board.
- 13.3 Planning applications to the Board will be assessed on individual merits. In general, the Board, in considering the planning applications, will take into account all relevant planning considerations including guidelines published by the Board. Guidelines published by the Board are available from the Board's website, the Secretariat of the Board and the Technical Services Division of the Planning Department. Application forms and Guidance Notes for planning applications can be downloaded from the Board's website, and are available from the Secretariat of the Board, and the Technical Services Division and the relevant District Planning Office of the Planning Department. Applications should be supported by such materials as the Board thinks appropriate to enable it to consider the applications.

- 14 - <u>S/NE-TKP/B</u>

13.4 Any development, other than those referred to in paragraph 13.1 above or in conformity with this Plan or with the permission of the Board, undertaken or continued on land included in this Plan on or after the date of the first publication in the Gazette of the Notice of the draft DPA Plan may be subject to enforcement proceedings under the Ordinance. Any diversion of streams, filling of land/pond and excavation of land in the relevant zones on or after the date of the first publication in the Gazette of the Notice of the draft DPA Plan without permission from the Board may also be subject to enforcement proceedings. Moreover, there is a presumption against filling of ponds for temporary land uses/developments in conservation-related zonings, such as "CA".

TOWN PLANNING BOARD XXXX 2013

PLANNING REPORT ON TO KWA PENG AND PAK TAM AU









PLANNING REPORT ON TO KWA PENG AND PAK TAM AU

OCTOBER 2013

	COI	NTENT	Page		
					Page
1.	INT	RODUCTION			
	1.1	Purpose of the Planning Report	1	4. PLANNING PROPOSALS	
	1.2	Background	1		
				4.1 The Outline Zoning Plan	10
2.	THE	E STUDY AREA		4.2 Planning Objectives	10
				4.3 Planning Principles	10
	2.1	Location	2	4.4 Land Use Proposals	11
	2.2	Natural Features	2	•	
	2.3	Historical Development	4	5. IMPLEMENTATION	18
	2.4	Population and Employment	4		
	2.5	Existing Land Uses	4		
	2.6	Land Ownership	5	Table 1: Small House Demand for To Kwa Peng	and Pak
	2.7	Transportation and Access	5	Tam Au	
	2.8	Infrastructure and Utility Services	5		
3.	PLA	ANNING ANALYSIS			
	3.1	Planning Context	6		
	3.2	Environmental and Conservation	6		
	3.3	Development Constraints	7		
	3.4	Development Opportunities	8		
	3.5	Development Pressure	8		
	3.6	Development Proposals Received Since	9		
		the Gazettal of the DPA Plan			

		Figure 7a	Land Ownership and Village 'Environs' - To Kwa Peng
List of Figures			<u> </u>
Figure 1	Location Plan	Figure 7b	Land Ownership and Village 'Environs' – Pak Tam Au
Figure 2	To Kwa Peng and Pak Tam Au Development Permission Area Plan	Figure 8a	Existing GIC, Infrastructural and Tourism-related Facilities – To Kwa Peng
Figure 3	Study Area of To Kwa Peng and Pak Tam Au	Figure 8b	Existing GIC, Infrastructural and Tourism-related Facilities – Pak Tam Au
Figure 4a	Aerial Photo - To Kwa Peng		
Figure 4b	Aerial Photo - Pak Tam Au	Figure 9a	Ecological and Cultural Heritage Resources – To Kwa Peng
Figure 5a	Existing Physical Features - To Kwa Peng	Figure 9b	Ecological and Cultural Heritage Resources – Pak Tam Au
Figure 5b	Existing Physical Features – Pak Tam Au		
Eigungs 5 s 5h	Photos of Evicting Physical Footunes To Vyvo	Figure 10a	Development Constraints – To Kwa Peng
rigules 3c – 3fi	Photos of Existing Physical Features - To Kwa Peng	Figure 10b	Development Constraints – Pak Tam Au
Figures 5i – 5l	Photos of Existing Physical Features - Pak Tam Au	Figure 11	Excavation Works in To Kwa Peng
	- 	Figure 12a	Proposed Land Use – To Kwa Peng
Figure 6a	Existing Land Uses - To Kwa Peng	E' 101	D II III DIT A
Figure 6b	Existing Land Uses - Pak Tam Au	Figure 12b	Proposed Land Use – Pak Tam Au
115010 00	Emissing Zand Coop Tan Tan Tu	Attachments	
Figure 6c	Photos of Existing Land Uses - To Kwa Peng		
Figure 6d	Photos of Existing Land Uses - Pak Tam Au	Annex A	Summary of the planning applications in the Area

1. INTRODUCTION

1.1. Purpose of the Planning Report

The purpose of this Planning Report is to give an account of the background and an appraisal of the existing conditions, characteristics and development requirements of the To Kwa Peng and Pak Tam Au area (the Area). It also aims at providing a basis for the preparation of an Outline Zoning Plan (OZP) for the Area and the formulation of a planning framework to guide future development.

1.2. Background

- 1.2.1. The Area, which comprises two sub-areas of To Kwa Peng and Pak Tam Au, is located at the northern coast of Sai Kung peninsula about 11 km to the north-east of Sai Kung Town (Figure 1). The To Kwa Peng area is located along the waterfront overlooking Ko Tong Hau off Long Harbour at the north-western edge of the Sai Kung East Country Park. The Pak Tam Au area is located along Pak Tam Road at the western edge of the Sai Kung East Country Park about 500m to the south of To Kwa Peng.
- 1.2.2. Amid the Sai Kung East Country Park, the To Kwa Peng area and the Pak Tam Au area have high scenic value forming part of the wider natural system of the Sai Kung countryside. As former villages both the To Kwa Peng area and the Pak Tam Au area comprise mainly fallow agricultural

- land and a few village houses surrounded by shrubland and woodland. The Area is rural in character with a scenic setting. Along the coast of the To Kwa Peng area are mudflats with record of uncommon species of mangroves and seagrass.
- 1.2.3. In recent years, there had been excavation, site formation works and suspected unauthorized tree felling activities that had adversely affected the landscape character of the Area. The Pak Tam Au area, located at the junction of the popular Maclehose Trail and Pak Tam Country Trail, has become a well-known spot for hikers. Any large scale and uncontrolled development may affect the natural environment and the ecological interest of the Area. There is an urgent need to prepare a DPA Plan for the Area to facilitate proper planning control and enforcement. Under the power delegated by the Chief Executive, on 13.12.2010, the Secretary for Development directed the Town Planning Board (the Board) to prepare a draft plan designating the Area as a development permission area (DPA) plan.
- 1.2.4. The draft To Kwa Peng and Pak Tam Au DPA Plan No. DPA/NE-TKP/1 was exhibited for public inspection on 7.1.2011. During the plan exhibition period, a total of 206 representations and 227 comments were received. After giving consideration to the representations and comments on 15.7.2011, the Board decided not to propose any amendment to the draft DPA plan to meet the representations.

- 1.2.5. On 7.2.2012, the Chief Executive in Council (CE in C) approved the draft To Kwa Peng and Pak Tam Au DPA Plan, which was subsequently renumbered as DPA/NE-TKP/2 (**Figure 2**). On 17.2.2012, the approved To Kwa Peng and Pak Tam Au DPA Plan No. No. DPA/NE-TKP/2 was exhibited for public inspection under section 9(5) of the Town Planning Ordinance (the Ordinance).
- 1.2.6. Pursuant to section 20(5) of the Ordinance, the DPA Plan is effective for three years until 7.1.2014. On 30.1.2013, the Chief Executive, pursuant to section 3(1)(a) of the Ordinance, directed the Board to prepare an OZP for the Area.

2. THE STUDY AREA

2.1. Location

2.1.1. The Area covers a total area of about 24.96 ha, comprising about 9.77 ha in the To Kwa Peng area and 15.19 ha in the Pak Tam Au area. Both To Kwa Peng and Pak Tam Au are recognized villages. The location of the Area is shown in **Figure 3**.

2.2. Natural Features

Physical Setting and Topography

2.2.1. The To Kwa Peng area is accessible by a walking trail off Pak Tam Road or by marine access off a

small pier fronting Ko Tong Hau. The To Kwa Peng area is rural in character comprising mainly a few village houses and fallow agricultural land surrounded by shrubs and woodland. While To Kwa Peng is a recognized village, the area is basically uninhabited at the moment. There is a natural stream near the western boundary of the area flowing from south to north towards Ko Tong Hau.

2.2.2. The Pak Tam Au area is encircled by the Sai Kung East Country Park on its north, east and south and Pak Tam Road and the Sai Kung West Country Park on its west. The Pak Tam Au area is rural in character comprising mainly village houses and fallow agricultural land in the centre of the area surrounded by shrubs and woodland. There is a partially trained stream running across the central portion of the area from the slope on the east towards the west. Pak Tam Au is a recognized village with a few village houses. Overview of the To Kwa Peng and Pak Tam Au area is shown in Figures 4a and 4b.

Natural Habitats (**Figures 5a – 5l**)

2.2.3. Amid the Sai Kung East Country Park, the To Kwa Peng and the Pak Tam Au area has high scenic value forming part of the wider natural system of the Sai Kung countryside. Details of the natural habitats are listed below:

(a) Fallow agricultural land

- (i) In the To Kwa Peng area, agricultural land is located mainly to the west of the village houses in the centre of the area. There is evidence of previous excavation and site formation works but the area is now overgrown with weeds. Fallow agricultural land is also found among ruin structures in the lower flat land along the coast to the west of the area.
- (ii) In the Pak Tam Au area, there are pockets of terraced fallow agricultural land in the centre of the area overgrown with grass and shrubs surrounded in the north and south by slopes covered with woodland and dense natural vegetation. With the decline of agricultural activities, agricultural land has been left fallow in both To Kwa Peng and Pak Tam Au.

(b) Woodland/shrubland

(i) Except for the stretch of fallow agricultural land with a few houses in the centre, the entire To Kwa Peng area is densely covered by woodland and shrubs. There is evidence of past tree felling activities around the hilltop to the east of the area. Similarly, while the centre of

- the area comprises fallow agricultural land, the remainder of the Pak Tam Au area mainly consists of natural hill slopes covered by dense woodland and shrublands.
- According to Agriculture, Fisheries and Conservation Department (AFCD), the wooded areas in the To Kwa Peng area and the Pak Tam Au area are ecologically linked to the natural habitats of the Sai Kung East Country Park. The To Kwa Peng area has been identified as a butterfly hotspot with over 40% of the local species recorded. A total of 96 plant species have been recorded in the fung shui wood behind To Kwa Peng Village. It has a high diversity of flora species and two protected plants, Pavetta hongkongensis (香港大沙葉) and Aquilaria sinensis (土沉香), can be found. The Aquilaria sinensis also occurs in the lowland forest at the knoll northeast of the fung shui wood. In the Pak Tam Au area, while a total of 62 plant species have been recorded in the fung shui wood, most of the fauna recorded therein are common and widespread species. The fung shui wood is located behind the village. It has a moderately high diversity of flora species and the protected plant, Pavetta hongkongensis (香港大沙葉), can be

found.

(c) Mangrove/Marsh

- (i) Estuarine mangrove and mudflat habitats are found in the To Kwa Peng area along the coast fronting Ko Tong Hau. According to AFCD, the natural mudflat on the coast is one of the most speciesrich sites in Hong Kong with respect to mangrove fauna. Some uncommon species of mangroves, Heritiera littoralis (銀葉樹) and Lumnitzera racemosa (欖李) and seagrass, Halophila minor (小喜鹽草) are found in this mudflat.
- (ii) In addition, some wetland plants, such as Kandelia canel (水筆仔), Heritiera littoralis (銀葉樹), Glochidion zeylanicum (香港算盤子), Excoecaria agallocha (海漆) and Cerbera manghas (海芒果), etc., are found along the east coast of To Kwa Peng and along two sides of the existing footpath.

(d) Stream Course

In the To Kwa Peng area, a natural stream is located near the western boundary of the area flowing from south to north towards Ko Tong Hau. In the Pak Tam Au area, there is a partially trained stream across the central

portion of the area from the slopes on the east towards the west.

2.3. Historical Development

2.3.1. Both To Kwa Peng and Pak Tam Au Villages are recognized villages in the area of Sai Kung North Heung. Today, To Kwa Peng is basically uninhabited with some ruins and a row of several village houses in dilapidated condition. Pak Tam Au comprises a small cluster village houses in fair to good condition. However, no record of built heritage and archaeological sites in the Area were detected.

2.4. Population and Employment

2.4.1. In 2011 Population Census, the population of the To Kwa Peng and Pak Tam Au areas was estimated to be below 50 persons. No employment is recorded in the Area. Considerable of agricultural land has been lying fallow covered with shrubs and grassland.

2.5. Existing Land Uses (**Figures 6a – 6d**)

The Area is rural and natural in character comprising mainly fallow agricultural land surrounded by shrubs and woodland. There is a natural stream near the western boundary of the To Kwa Peng area and estuarine mangrove with mudflat habitats are found along the coast fronting Ko Tong Hau. To Kwa Peng Village is located at the central portion of the area facing Ko Tong Hau while

Pak Tam Au Village is located along Pak Tam Road with fallow agricultural land in the central area surrounded by woodland at the periphery connection to the surrounding Sai Kung East and West Country Park. The major existing land uses include the following:

Village Type Development

- 2.5.1. To Kwa Peng and Pak Tam Au are recognized villages. To Kwa Peng is basically uninhabited with some ruins and a row of village houses in dilapidated condition. Pak Tam Au comprises a small cluster of about 12 village houses up to three storeys in height in fair to good condition. There is a short local track connecting these houses with Pak Tam Road.
- 2.5.2. According to District Lands Officer/Tai Po, Lands Department (DLO/TP, LandsD), the number of outstanding Small House applications is 72 for To Kwa Peng Village and 11 for Pak Tam Au Village while the number of 10-year Small House demand is 60 for To Kwa Peng Village and 100 for Pak Tam Au Village.

Burial Grounds

2.5.3. There are graves located to the south of the hill along the southern boundary of the To Kwa Peng area and at the small hill at the south-western corner of the Pak Tam Au area (**Figure 7b**).

2.6. Land Ownership

2.6.1. The majority of land in the Area (about 70%) is Government land. The remaining 30% are private land comprising mainly fallow agricultural land in the central parts of the Area (**Figures 7a and 7b**).

2.7. Transportation (**Figures 8a and 8b**)

- 2.7.1. The To Kwa Peng area is not served by any vehicular access and is only accessible by a walking trail connecting to Pak Tam Road and along the coast to the west towards Wong Shek Pier. There is marine access off a small pier located at the north of the area. Visitors often charter small vessels off Wong Shek Pier to land at this pier.
- 2.7.2. The Pak Tam Au area is accessible via Pak Tam Road and walking trails connecting to the Country Park to the south and north of the area.

2.8. Infrastructure and Utility Services

2.8.1. The To Kwa Peng and Pak Tam Au area is provided with electricity and telephone services. Potable water supply has been provided to the existing facilities and villagers of the areas. There are no sewerage and drainage systems.

3. PLANNING ANALYSIS

3.1. Planning Contexts

- 3.1.1. The To Kwa Peng area is located in the south side of Ko Tong Hau and adjoining to the northwestern corner of Sai Kung East Country Park. Given the natural environment and high landscape sensitivity of the Area coupled with its inaccessibility due to the lack of vehicular access, the planning framework for the area should fundamentally be for preservation of the natural environment. Any large scale development is not recommended to minimize disturbance to the existing landscape and adjoining Country Park.
- 3.1.2. The Pak Tam Au area is located along Pak Tam Road at the western edge, integral with Sai Kung East Country Park. Due to the high sensitivity of the surrounding Country Parks, high quality scenery and landscape along the section of Maclehose Trail and Pak Tam Country Trail, the planning framework for the area should fundamentally be for the preservation of the natural environment. Any large scale development is not recommended to minimize disturbance to the existing landscape and adjoining Country Park.
- 3.1.3. With reference to the Landscape Value Mapping of Hong Kong (2005), the To Kwa Peng area has a rural landscape character which comprises mainly fallow agricultural land and surrounded by shrubs and woodland. Mudflats and significant mangroves define the larger northern cove of To Kwa Peng. A natural stream near the western boundary of the To Kwa Peng area is flowing from

- south to north towards Ko Tong Hau. The To Kwa Peng Village with few village houses and fallow agricultural land are located near to the toe of the hillslope without direct road access. The To Kwa Peng area is rated with "High (qualified)" landscape value that the unique coastal landscape creates a shelter surrounded with vegetated knolls. However, some areas have already been disturbed by vegetation clearance.
- 3.1.4. The enclosed, tranquil and rural character and woodlands of Pak Tam Au has a high landscape value which complements the overall natural quality and the landscape beauty of the surrounding Sai Kung East and Sai Kung West Country Parks. Vegetation comprises woodland and scrub on the lower valley and the woodland forms part of well-established vegetation in the Sai Kung East Country Park. The Pak Tam Au Village comprises pockets of terraced fallow agricultural lands surrounded by the vegetated slope with some areas already disturbed by vegetation clearance. The Pak Tam Au area is rated with "High" landscape value.
- 3.2. Environmental and Conservation Considerations (**Figures** 9a and 9b)
 - 3.2.1 The To Kwa Peng area is located in the south side of Ko Tong Hau and adjoining the northwest corner of Sai Kung East Country Park while the Pak Tam Au area is located along Pak Tam Road at the western edge, integral with Sai Kung East

Country Park. The wooded areas in the To Kwa Peng and Pak Tam Au areas are ecologically linked to the natural habitats at the Sai Kung East Country Park. The To Kwa Peng area has been identified as a butterfly hotspot. The 'fung shui' wood behind To Kwa Peng Village has a high diversity of flora species with some protected plants. In the Pak Tam Au area, while a total of 62 plant species have been recorded in the *fung shui* wood, most of the fauna recorded therein are common and widespread species. The *fung shui* wood behind the village has a moderately high diversity of flora species and a protected plant.

3.3. Development Constraints (Figures 10a and 10b)

Transportation (Road Access)

- 3.3.1. The To Kwa Peng area is located in a remote area without vehicular access. Currently, it is only accessible by a footpath off Pak Tam Road at a distance of over 700 m through Sai Kung East Country Park or by sea at the small pier at the north of the area.
- 3.3.2. The Pak Tam Au area is accessible via Pak Tam Road and walking trails connecting to the Country Park to the south and north of the area. At present, Pak Tam Road is a restricted road and vehicles entering it have to apply permits from relevant departments.

Geotechnical

3.3.3. Land to the south, east and west of the To Kwa Peng area and land to the east, northwest and south of the Pak Tam Au area are bounded by steep natural hillslopes, and may be affected by potential natural terrain landslide hazards. For new development in these areas, especially those located near the boundary, natural terrain hazard study would be required and suitable mitigation measures should be provided, if necessary, as part of the development or re-development.

Burial Grounds

3.3.4. A large piece of burial grounds found at the southwestern part of the Pak Tam Au area is not suitable for any development.

Water Gathering Ground (WGG)

3.3.5. The whole of the Pak Tam Au area is within the upper indirect water gathering ground (WGG). To prevent contamination of waters which are designated for abstraction for potable water supply, any proposed development that may result in any material increase in pollution effect will not be encouraged.

Sewerage

3.3.6. There is no existing public sewer nor any committed/planned sewerage project planned for

the Area. At present, on-site discharge system such as septic tanks and soakaway pits are generally used in traditional villages. They would only satisfy the requirements of individual lots. Any increase in population or number of visitors to the Area or further recreation/residential developments will require additional facilities.

Other Infrastructure and Utility services

3.3.7. The Area is provided with electricity and telephone services. Potable water supply has been provided to the existing facilities and villagers of the Area.

3.4. Development Opportunities

Conservation Potential

3.4.1. Amid the Sai Kung East Country Park, the To Kwa Peng area and the Pak Tam Au area have high scenic and landscape value forming part of the wider natural system of the Sai Kung countryside comprising a diversity of woodland, hillsides shrubland, abandoned agricultural land, stream, freshwater marsh, and mangrove, which support a diversity of flora and fauna. Due to high quality scenery and landscape along the section of Maclehose Trail and Pak Tam Country Trail at Pak Tam Au area, and the location of the To Kwa Peng area along the waterfront overlooking Ko Tong Hau, the natural environment of the Area is worthy of conservation while the scale of the village

development should be compatible with the rural setting and surrounding landscape.

Tourism Potential (Figures 8a and 8b)

- 3.4.2. The To Kwa Peng area is located to south of Wong Shek Pier connected by a hiking trail. There is a bus terminus at Wong Shek Pier which is both a popular recreational destination and a transport connection point between Hong Kong's urban area and outlying places (such as Tap Mun, Wan Tsai and Chek Keng, etc.). The Jockey Club Wong Shek Water Sports Centre, south of Wong Shek Pier, is popular for various types of waters sports activities, such as sailing, windsurfing and canoeing.
- 3.4.3. The Pak Tam Au area, with a section of Maclehose Trail and Pak Tam Country Trail running across its northern and southern regions, is a popular spot for hikers as it is located between Chek Keng and Cheung Sheung connected by Maclehose Trail. Also, Pak Tam Country Trail connects the area and the Lady Maclehose Holiday Village is located to its further south connected by Pak Tam Road or Pak Tam Country Trail.

3.5. Development Pressure

3.5.1. Suspected illegal tree felling activities and illegal excavation on private and government Land were detected at To Kwa Peng from 2009 to 2010. (**Figure 11**). Site inspection revealed that there

was a recent tree felling near the pier.

- 3.5.2. To Kwa Peng and Pak Tam Au are recognized villages. To Kwa Peng is basically uninhabited while there is a small cluster of about 12 village houses at Pak Tam Au. According to LandsD, the number of outstanding Small House applications is 72 for To Kwa Peng Village and 11 for Pak Tam Au Village while the number of 10-year Small House demand is 60 for To Kwa Peng Village and 100 for Pak Tam Au Village. Land should be reserved to meet the future demand of village house developments.
- 3.5.3. As at March 2013, there are 22 numbers of Small House/NTEH applications in the To Kwa Peng and Pak Tam Au areas. One planning application (No. A/DPA/NE-TKP/1) for three Small House developments at the Pak Tam Au area was approved with conditions in July 2011 mainly on the ground that given the special circumstances of the case, where Certificate of Exemption (C of E) for the 3 Small Houses had been issued six years ago, concerned Government departments particularly the Water Supplies Department (WSD) and the Environmental Protection Department (EPD) had no objection to the application subject to imposing relevant approval conditions. Six planning applications for Small Houses in Pak Tam Au and three planning applications for Small Houses in To Kwa Peng have been rejected by the Town Planning Board mainly on, inter alia, adverse environmental impacts on the surrounding areas. Details of the applications are summarized at **Annex A.**

- 3.6. Development Proposals Received Since the Gazettal of the DPA Plan
 - 3.6.1. In the course of preparation of the Plan, two specific proposals and some views/ proposals were received from informal meetings/ site visits with concerned parties. They are summarized below.
 - 3.6.2. For To Kwa Peng, the relevant indigenous inhabitant representative (IIR) submitted a proposal on the "V" zone boundaries. He proposes to zone all the private land within the 300-foot village 'environs' and part of the private land beyond the village 'environs' as "V".
 - 3.6.3. For Pak Tam Au, AF Architecture & Planning Consultants Ltd submitted sustainable development planning and ecological conservation proposals, which comprise a total of 76 nos. of Small Houses, open space with an eating place, a youth hostel, an organic hobby farm, and an ancillary car park, etc., with an access road/ emergency vehicular access (EVA), two communal sewerage treatment plants (STPs) and landscape planting.
 - 3.6.4. The local villagers are of the view that there is a need to strike a balance between development and conservation and adequate land should be designated to meet their Small House demand.

- 3.6.5. Environmental concern groups 1 suggested that the future OZP should focus on conservation and the proposed "V" zone should be confined to the existing ruins of structures and its surrounding areas while the ecologically sensitive areas should be preserved and protected. Also, conservation zonings such as "Conservation Area" ("CA") and "Coastal Protection Area" ("CPA") are preferred for the secondary woodland extending from the Country Parks, natural streams and coastal areas including the mangrove/freshwater marshes thereat. Adequate buffer zones should also be provided on both sides of natural streams.
- 3.6.6. Kadoorie Farm & Botanic Garden Corporation has also provided the information on the important habitats in the Area. In this regard, AFCD has no comment on the information on the rare and protected species as it is based on the previous record of Kadoorie Farm & Botanic Garden Corporation.

4. PLANNING PROPOSALS

4.1. The Outline Zoning Plan

The draft To Kwa Peng and Pak Tam Au OZP (the Plan) prepared under section 3(1) of the Ordinance is to provide a statutory basis for planning control over the Area. It will

supersede the approved To Kwa Peng and Pak Tam Au DPA Plan No. DPA/NE-TKP/2, which was exhibited for public inspection under section 9(5) of the Ordinance on 17.2.2012. Uses and development that are always permitted and those for which the Board's permission must be sought in various zones are set out in a schedule of Notes attached to the Plan. Also accompanying the Plan is an Explanatory Statement to assist an understanding of the Plan and to reflect the planning intentions and objectives of the Board for various land-use zonings.

4.2. Planning Objectives

- 4.2.1. The development of the Area should gear towards the following objectives:
 - (a) to provide a comprehensive planning framework to guide the development on an integrated and co-ordinated basis;
 - (b) to conserve the Area's outstanding natural landscape and ecological value in safeguarding the natural habitat and natural system of the wider area; and
 - (c) to preserve the natural and rural character of the Area.

4.3. Planning Principles

4.3.1. The main planning principles below are adopted for preparation of the planning and development

¹ Environmental concern groups include Designing Hong Kong, The Hong Kong Bird Watching Society, WWF Hong Kong, The Conservancy Association, Kadoorie Farm & Botanic Garden Corporation.

proposals of the Area:

- (a) The To Kwa Peng area is located in the south side of Ko Tong Hau and adjoining the northwest corner of Sai Kung East Country Park while the Pak Tam Au area is located along Pak Tam Road at the western edge, integral with Sai Kung East Country Park. The Area comprises a diversity of natural habitats including, inter alia, mature woodland, hillside shrubland, freshwater marsh and mangrove which support some rare/uncommon flora and fauna of the Area and should be preserved and protected.
- (b) Small House development in recognized villages will be consolidated at suitable locations so as to preserve the rural character of the Area. Future development and redevelopment should also demonstrate such a low-rise characteristic and not to overtax the limited infrastructure.

4.4. Land Use Proposals (Figures 12a and 12b)

- 4.4.1. In the designation of various land use zones in the Area, consideration has been given to the natural environment, physical landform, existing land use pattern, demand for Small Houses and availability of infrastructure. The following land use zones are proposed to be designated on the Plan.
- 4.4.2. Village Type Development ("V") (5.58 ha or

22.36%)

- (a) The planning intention of this zone is to reflect existing recognized village, and to provide land considered suitable for provision of village houses. Land within this zone is primarily intended for development of Small Houses by indigenous villagers. It is also intended to concentrate village development within this zone for a more orderly development pattern, efficient use of land and provision of infrastructures and services. Selected commercial and community uses serving the needs of the villagers and in support of the village development are always permitted on the ground floor of a New Exempted **Territories** House. Other commercial, community and recreational uses may be permitted on application to the Board.
- (b) This zone includes the two recognized villages in the Area, namely To Kwa Peng and Pak Tam Au Villages.
- (c) The "V" zones are drawn up having regard to the village 'environs', the local topography, the existing settlement pattern, site constraints, the estimated Small House demand, and provision of infrastructural facilities. Areas of difficult terrain, potential natural terrain hazards, dense vegetation, conservation and ecological value, burial grounds and the buffer area for the stream courses are excluded.

- (d) The latest information on the outstanding Small House demand and 10-year Small House demand forecast has been obtained from the District Lands Officer/Tai Po, Lands Department (DLO/TP, LandsD). However, it should be noted that the figures of 10-year Small House demand forecast are estimated and provided by the IIR in response to DLO/TP, LandsD's enquiry without any supporting evidence. If there is substantial and unjustified increase between the updated 10year demand forecast figure and the previous corresponding figure when preparing the DPA Plan, the latter would be adopted in the preparation of the OZP unless strong justifications are received by the respective IIR.
- (e) DLO/TP, LandsD has advised that the latest total Small House demand are 132 for To Kwa Peng (comprising the outstanding Small House demand of 72 and the 10-year Small House demand forecast of 60) and 111 for Pak Tam Au (comprising the outstanding Small House demand of 11 and the 10-year Small House demand forecast of 100). It is noted that there is a substantial increase in the 10-year Small House demand forecast from 30 to 60 for To Kwa Peng and from over 25 to 100 for Pak Tam Au as compared with the previous

- corresponding figure 2 when preparing the DPA Plan in 2010. The updated figures are provided without justifications and not verified. As the substantial increase in Small House demand forecast is not supported by evidence and not verified, the "V" zone boundaries are prepared based on the previous 10-year forecast. The total Small House demand would be 102 for To Kwa Peng (i.e. current outstanding (72) plus 10-year forecast (30) in 2010) and 36 for Pak Tam Au (i.e. current outstanding (11) plus 10-year forecast (25 rather than "over 25") in 2010). Based on PlanD's preliminary estimate, land required for meeting the Small House demand of 102 (for To Kwa Peng) and 36 (for Pak Tam Au) is about 2.55 ha and 0.90 ha respectively (Table **1**).
- (f) With reference to the Small House demand and 'VE' for the recognized village as enumerated above, PlanD has analyzed the conditions of the area within 'VE' taking account of the existing village cluster, environmental conditions and natural terrain and topography of the Area. It should be noted that To Kwa Peng Village is mainly concentrated at the toe of the hillslopes in the central part of the area. Land within the 'VE'

12

² According to DLO/TP, LandsD in December 2010, the 10-year Small House demand forecast (2010-2019) is 30 for To Kwa Peng and over 25 for Pak Tam Au.

at the central part of the area comprises not only existing village clusters and ruin structures of To Kwa Peng Village, but also some hilly slopes in the south, a knoll in the east, some fallow agricultural land with a natural stream in the north-west and the natural coastline with a narrow strip of mangrove in the north. As for Pak Tam Au Village, the existing village cluster is mainly concentrated at the toe of the hillslopes in the north-western part of the area near Pak Tam Road. Land within the 'VE' at the central and north-western part of the area comprises not only existing village clusters and ruin structures of Pak Tam Au Village, but also some hilly slopes in the north and west, some fallow agricultural land in the east, south and west, and a natural stream in the south. Throughout the plan-making process, concerned departments have been closely liaised to ensure their input and comments are duly taken into account in the delineation of the "V" zone for the existing village cluster and potential areas for village expansion.

(g) According to the 2011 Population Census, the population in the To Kwa Peng and Pak Tam Au areas is below 50 persons. For the To Kwa Peng area, given the natural environment with conservation and landscape value coupled with its inaccessibility due to lack of vehicular access, an incremental approach for designation of "V" zone for Small House

development has been adopted with an aim to consolidating Small House development at suitable locations so as to avoid undesirable disturbances to the natural environment and overtaxing the limited infrastructure in the area. The surrounding woodland and the natural coastline with mangrove in the northern part and the natural stream in the western part of the area are hence suggested to be protected. Thus, about 1.94 ha of land mainly comprising the existing village settlements and cluster with its surrounding areas have been reserved for Small House development. Within the proposed "V" zone, about 0.97 ha of land is available (or equivalent to about 38 Small House sites) (**Table 1**). Although there is insufficient land to meet the outstanding and 10-year Small House demand (deficit of about 1.58 ha of land or equivalent to about 64 Small House sites), this figure has not been verified. Besides, the villagers may apply for Small House development in other zones which would be considered by the Board on its individual merits.

(h) As for the Pak Tam Au area, given the natural environment with conservation and landscape value, the boundary of the "V" zone has also been drawn up with an aim of consolidating Small House development at suitable locations so as to avoid undesirable disturbances to the natural environment and overtaxing the limited infrastructure in the area. The surrounding

woodland, the natural stream in the southern part and the ponds in the eastern part of the area are hence suggested to be protected. The central parts of the Pak Tam Au area adjoining the south of the existing village cluster are mainly fallow agricultural land overgrown with grass and shrubs. As the grassland in the central part is flat, close to the existing village and large enough to meet the outstanding and the 10-year forecast for Small House demand, it is the optimal location for designation as "V" zone. Consolidation of Small House development at suitable locations could avoid undesirable disturbances to the natural environment and overtaxing the limited infrastructure in the Area. The currently proposed "V" zone covering a total of 3.64 ha has allowed sufficient land to meet the Small House demand. Within the proposed "V" zone, about 1.84 ha of land is available (or equivalent to about 73 Small House sites) (**Table 1**). Although there is sufficient land to meet the 10-year Small House demand (surplus of about 0.94 ha of land or equivalent to about 37 Small House sites), this figure has not been verified. In addition, opportunity may be taken to make use of the surplus area to accommodate the potential cross-village applications where there is a shortage of available land for Small House developments. Overall, there is still insufficient land to meet the total outstanding and 10-year Small House demand in To Kwa Peng and Pak Tam Au (a

deficit of about 0.64 ha of land or equivalent to about 27 Small House sites). Besides, planning is a continuous process, the boundaries of the "V" zone would be kept under review to cater for changing circumstances. Also, the villagers may apply for Small House development in other zones which would be considered by the Board on its individual merits.

(i) With reference to the concern on potential impacts of developments in particular Small Houses within "V" zones on existing stream courses in the Area, it should be noted that in accordance with the Environmental, Transport and Works Bureau's Technical Circular (Works) No. 5/2005, under the current administrative practice, development proposals/submissions that may affect natural streams / rivers, the approving / processing authorities at various stages of the development should consult and collate comments from the AFCD and relevant incorporate relevant authorities and comments/advice as conditions of approval wherever possible. Accordingly, LandsD when processing Small House grant and applications in close proximity to existing stream courses, should consult concerned departments including AFCD and PlanD to ensure that all relevant departments would have adequate opportunity to review and comment on the applications. It is also

suggested to clearly state this requirement in the Explanatory Statement of the "V" zone that when processing Small House grant and applications in close proximity to existing stream courses, AFCD and PlanD should be consulted.

- (j) The "V" zones in the To Kwa Peng and Pak Tam Au area are overlooked by steep natural hillsides and may be affected by potential natural terrain landslide hazards. For future development in this area, the developer(s) may be required to carry out natural terrain hazard study and provide suitable hazard mitigation measures, if found necessary, as part of the development. Any development within the steep natural terrain may be required to carry out a natural terrain hazard study and provision of necessary hazard mitigation measures.
- (k) Except for those specified, no new development, or addition alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum building height of 3 storeys (8.23 m) or the height of the building which was in existence on the date of first publication in the Gazette of the notice of the draft DPA plan, whichever is the greater.
- (l) As diversion of streams or filling of pond may

- cause adverse drainage impacts on the adjacent areas and adverse impacts on the natural environment, permission from the Board is required for such works and related activities except public works co-ordinated or implemented by government, and maintenance, repair or rebuilding works.
- (m) There is neither existing nor proposed public sewer in the Area. For Small House development, the design and construction of such systems need to comply with relevant standards and regulations, such as Environmental Protection Department (EPD)'s Practice Note for Professional Person (ProPECC PN) 5/93, for the protection of the water quality of the Area.
- (n) In addition, the Pak Tam Au area also falls entirely within the upper indirect water gathering ground. For any village type development within the "V" zone, it should be demonstrated that the water quality within the water gathering ground will not be affected by the proposals. In general, the use of septic tank and soakaway systems for sewage treatment and disposal is not considered as an acceptable means for new village developments located in water gathering There should be demonstrably grounds. effective means (such as proper waste water treatment plant) to ensure that the effluent water quality is acceptable to concerned

government departments.

4.4.3. Green Belt ("GB") (1.79 ha or 7.17%)

- (a) The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone.
- (b) The sites zoned "GB" include the vegetated hillslopes, natural stream and woodland adjoining the west of the "V" zone of the existing main village cluster of To Kwa Peng and the vegetated hillslopes and woodland at the southwest part of Pak Tam Au. These "GB" zones mainly comprise relatively disturbed, young woodland and shrubby grassland developed from abandoned agricultural land, which provide a buffer between the development and conservation areas or Country Park area.
- (c) There is a traditional burial ground at the southwestern part of the Pak Tam Au area which is within this zone. It has been in existence for many years, which are considered as an existing use and intended for burial places of deceased indigenous villagers in the area. To respect the local ritual and tradition, burial activities within this zone are

- generally tolerated. The District Office (DO) is delegated with authority under the Public Health and Municipal Services Ordinance (Cap 132) to approve burial grounds outside gazetted cemeteries. Burial activities should be approved by DO and confined within the designated grounds and any encroachments onto the natural areas should be avoided.
- (d) There is a general presumption against development within this zone. Development in this zone will be strictly controlled. Development proposals will be considered by the Board on individual merits taking into account the relevant Town Planning Board Guidelines.
- (e) As diversion of streams, filling of land/pond or excavation of land may cause adverse drainage impacts on the adjacent areas and adverse impacts on the natural environment, permission from the Board is required for such works and related activities except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works.

4.4.4. Conservation Area ("CA") (16.51 ha or 66.14%)

(a) This zone is intended to protect and retain the existing natural landscape, ecological or topographical features of the area for conservation, educational and research

- purposes and to separate sensitive natural environment such as Country Park from the adverse effects of development. There is a general presumption against development in this zone. In general, only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted.
- (b) The "CA" zoning, which mainly comprises relatively undisturbed native woodland ecologically-linked to the natural habitats in the adjacent Sai Kung East Country Park, covers the fung shui woods behind the villages and the adjoining wooded areas. In To Kwa Peng, a high diversity of flora species (96 species), including the protected Aquilaria sinensis (十沉香) and Pavetta hongkongensis (香港大沙葉), has been recorded. Aquilaria sinensis (土沉香) has also been recorded in the woodland at the knoll northeast of the fung shui woodland. Though most of the species recorded in the subject site are common and widespread, To Kwa Peng has been identified as a butterfly hotspot with over 40% of the local species recorded, including the very rare Choaspes hemixanthus (半黃綠弄蝶), and the rare Zographetus satwa (黃裳腫脈弄蝶) and Abraximorpha davidii (白弄蝶). For Pak Tam Au, a partially disturbed fung shui woodland is

- found behind the village with a moderately high diversity of flora species (62 species), including the protected *Pavetta hongkongensis* (香港大沙葉).
- (c) New residential development is not permitted under this zone. Redevelopment of existing houses may be permitted on application to the Board. The redevelopment of existing houses shall not result in a total redevelopment in excess of the plot ratio, site coverage and height of the house which was in existence on the date of the first publication of the DPA Plan.
- (d) Works relating to diversion of streams, filling of land/pond or excavation of land may cause adverse drainage impacts on adjacent areas and adverse impacts on the natural environment. In view of the conservation value of the area within this zone, permission from the Board is required for such activities.
- 4.4.5. Coastal Protection Area ("CPA") (1.08 ha or 4.33%)
 - (a) This zone is intended to conserve, protect and retain the natural coastlines and the sensitive coastal natural environment, including attractive geological features, physical landform or area of high landscape, scenic or ecological value, with a minimum of built development. It may also cover areas which

serve as natural protection areas sheltering nearby developments against the effects of coastal erosion. There is a general presumption against development in this zone. In general, only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted.

- (b) The coastal areas of To Kwa Peng along Ko Tong Hau, where estuarine mangrove and mudflat habitats locate, are under this zoning. According to AFCD, the natural mudflat on the coast is one of the most species-rich sites in Hong Kong with respect to mangrove fauna. Some uncommon species of mangroves, Heritiera littoralis (銀葉樹) and Lumnitzera racemosa (欖季) and seagrass, Halophila minor (小喜鹽草) are found in this mudflat.
- (c) In addition, some wetland plants, such as Kandelia canel (水筆仔), Heritiera littoralis (銀葉樹), Glochidion zeylanicum (香港算盤子), Excoecaria agallocha (海漆) and Cerbera manghas (海芒果), etc., are found along the east coast of To Kwa Peng and along two sides of the existing footpath.
- (d) New residential development is not permitted under this zone. Redevelopment of existing

houses may be permitted on application to the Board. The redevelopment of existing houses shall not result in a total redevelopment in excess of the plot ratio, site coverage and height of the house which was in existence on the date of the first publication of the DPA Plan.

(e) Works relating to diversion of streams, filling of land/pond or excavation of land may cause adverse drainage impacts on adjacent areas and adverse impacts on the natural environment. In view of the conservation value of the area within this zone, permission from the Board is required for such activities.

5. IMPLEMENTATION

Infrastructural Provisions

5.1. The To Kwa Peng area and the Pak Tam Au area are provided with electricity and telephone services. Potable water supply has been provided to the existing facilities and villagers of the Area. There are no committed/proposed sewerage and drainage projects planned for the Area.

Statutory Development Control

5.2. The OZP provides a broad land-use framework for development control and implementation of planning proposals for the Area. More detailed plans will be

prepared as a basis for public works planning and private developments. The type of permitted developments and uses on land within the Area are listed in the Notes of the Plan. All uses directly related and ancillary to the permitted developments and uses are also permitted.

- 5.3. At present, there is no overall programme for the provision of infrastructure within the Area. The implementation process will be gradual and may stretch over a long period of time depending on the availability of resources. It will be undertaken through the participation of both public and private sectors.
- 5.4. Roads, utility services installation and public works projects will be implemented through the Public Works Programme, the Rural Public Works Programme, and Local Public Works Improvement Programme subject to priority and resource availability. Private developments will be effected principally through private sector initiatives in accordance with the zoned uses indicated on the OZP, provided that their proposals meet Government requirements.
- 5.5. Any development, other than those referred to in paragraph 5.1 above or in conformity with this Plan or with the permission of the Board, undertaken or continued on or after 7.1.2011 on land included in a plan of the To Kwa Peng and Pak Tam Au DPA, may be subject to enforcement proceedings under the Ordinance.

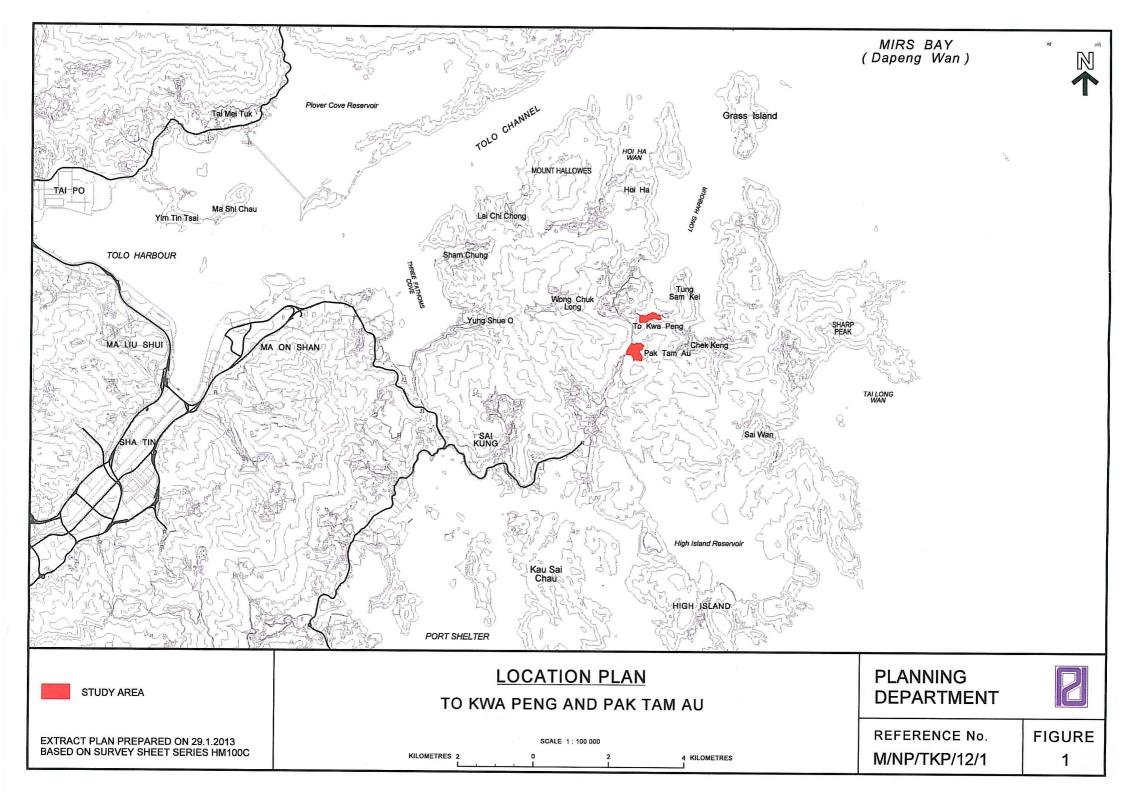
PLANNING DPEARTMENT OCTOBER 2013

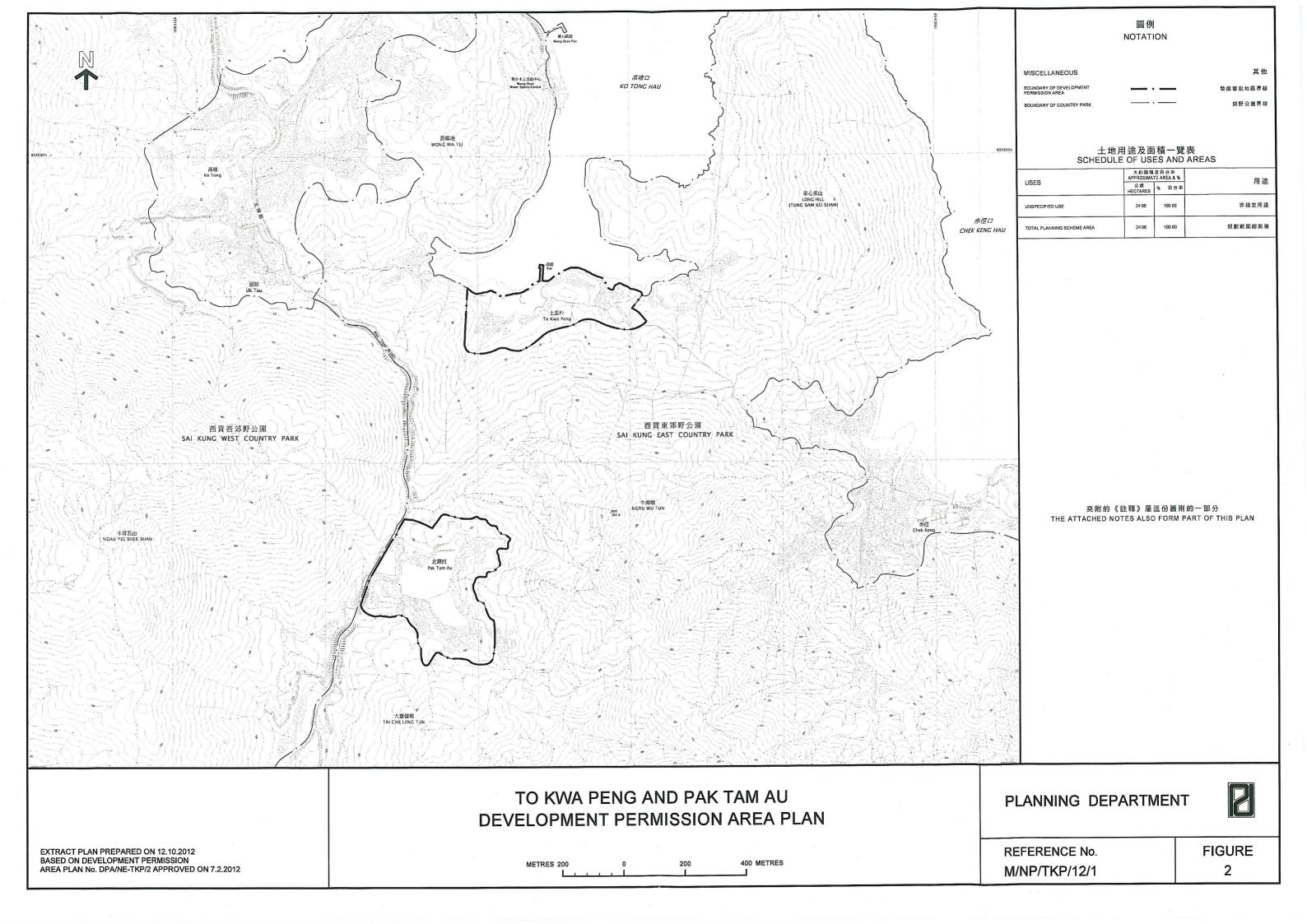
<u>Table 1</u>

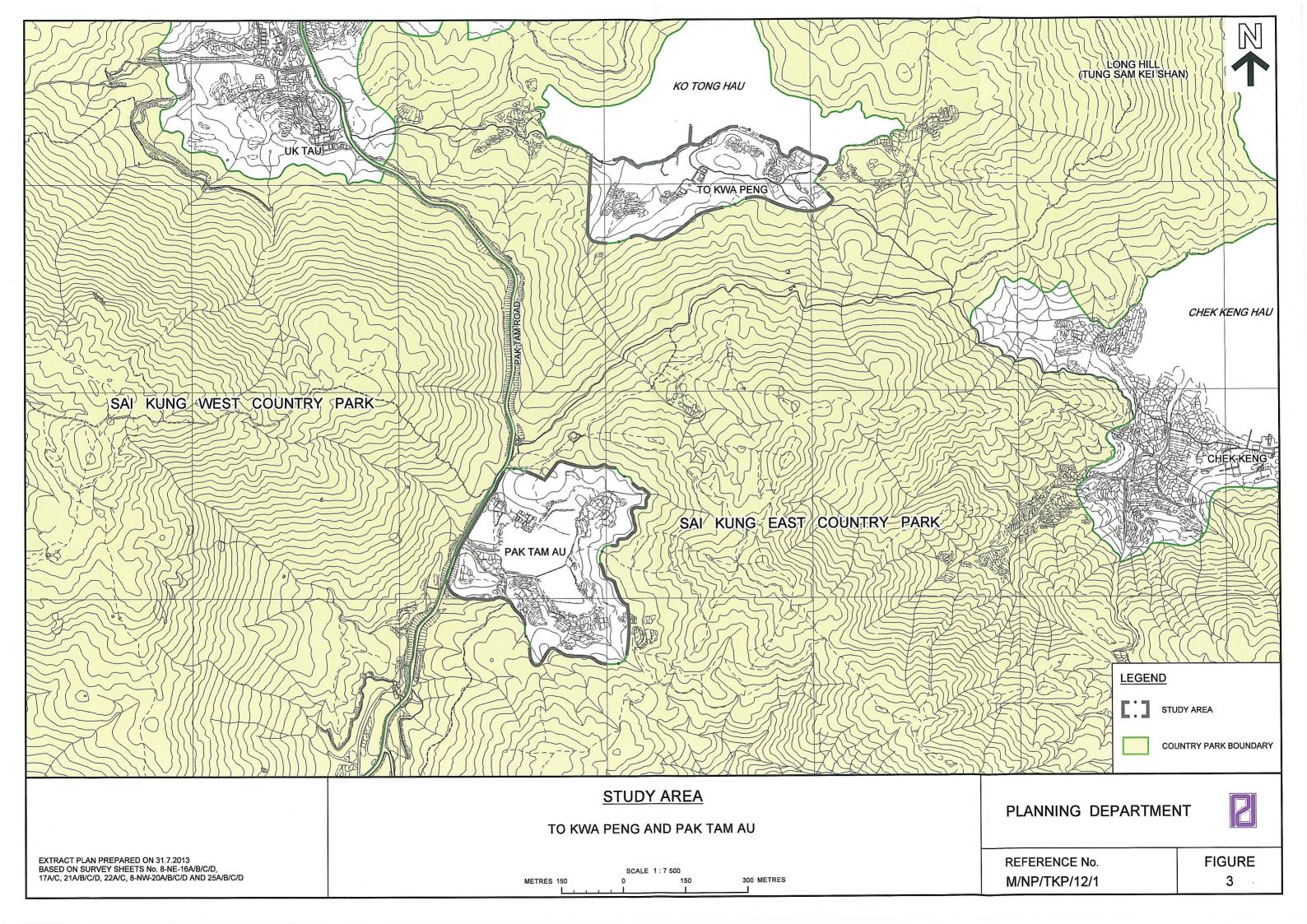
<u>Small House Demand for To Kwa Peng and Pak Tam Au</u>

	Small House Demand Figure in 2010		Small House Demand Figure in 2013		'VE' Area	"V" zone	Required land to meet	Available Land to meet new	Percentage of the new demand met
	Outstanding Demand	10-year forecast (2010 – 2019)	Outstanding Demand	10-year forecast (2013 – 2022)	(ha)	OZP (ha)	new demand (ha)	demand figure (ha)	by available land
To Kwa Peng	72	30*	72*	60*	5.23	1.94	2.55	0.97	38%
Pak Tam Au	14	> 25*	11*	100*	3.74	3.64	0.90	1.84	204%
Total	86	> 55	83	160	8.97	5.58	3.45	2.81	81%

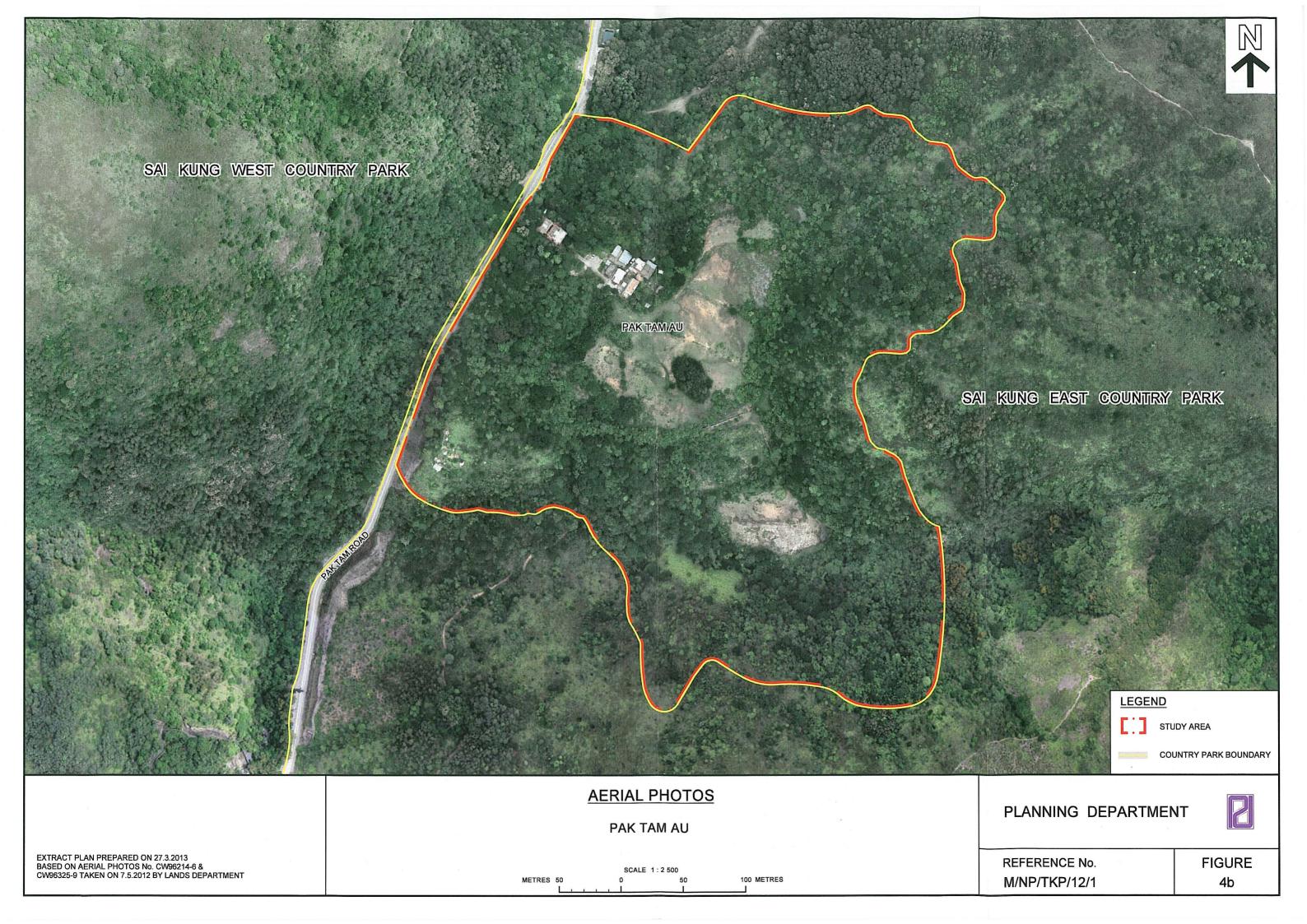
^{*} When considering the land use zoning for the "V" zone, it is noted that no justification has been provided by the IIRs for the substantial increase in the latest 10-year forecast. In such circumstances, the updated outstanding demand in 2013, i.e. 72 for To Kwa Peng and 11 for Pak Tam Au, and the previous10-year forecast provided in 2010, i.e. 30 for To Kwa Peng and 25 rather than "over 25" for Pak Tam Au, are adopted as the total Small House demand figures in preparation of the draft OZP.

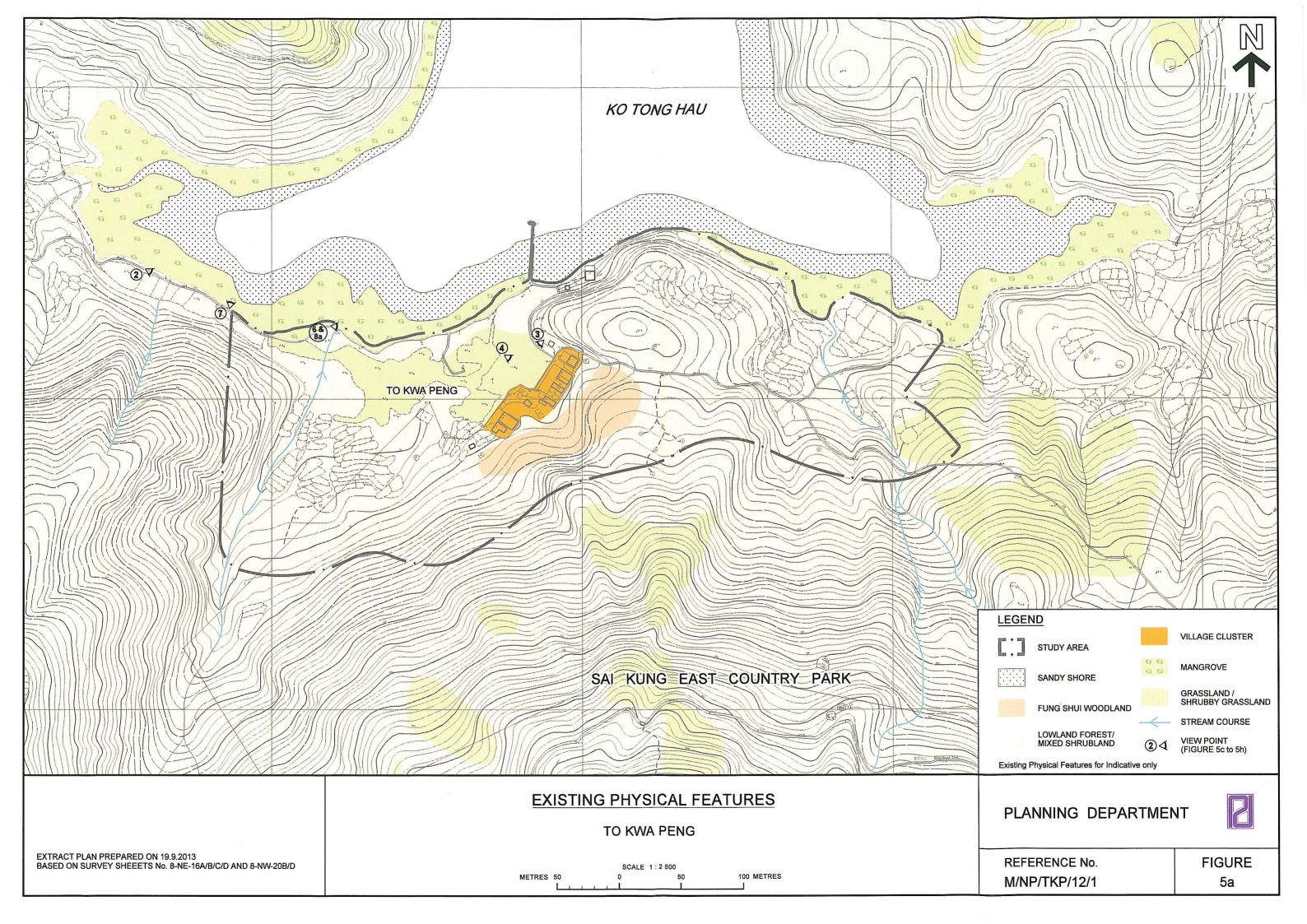


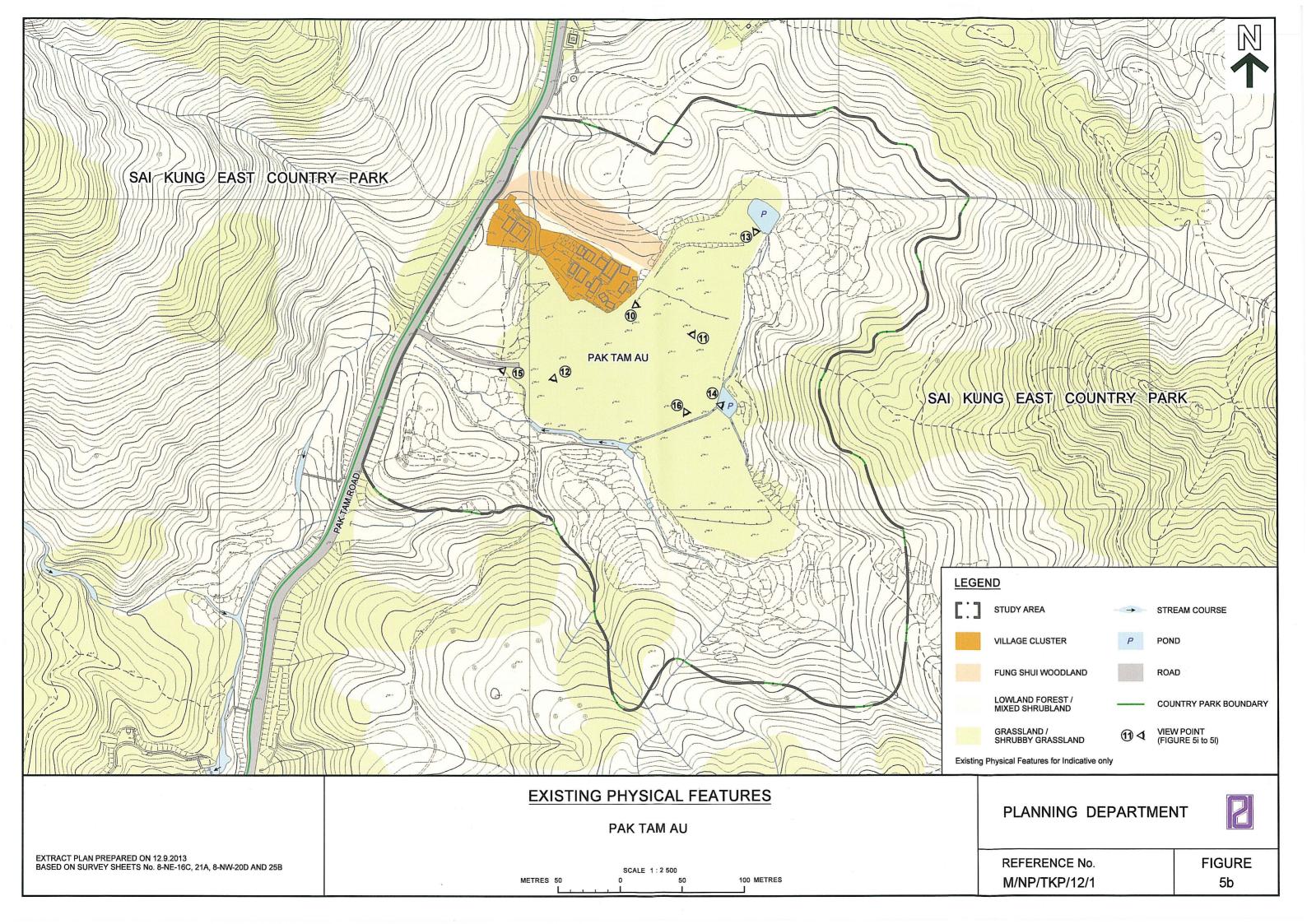












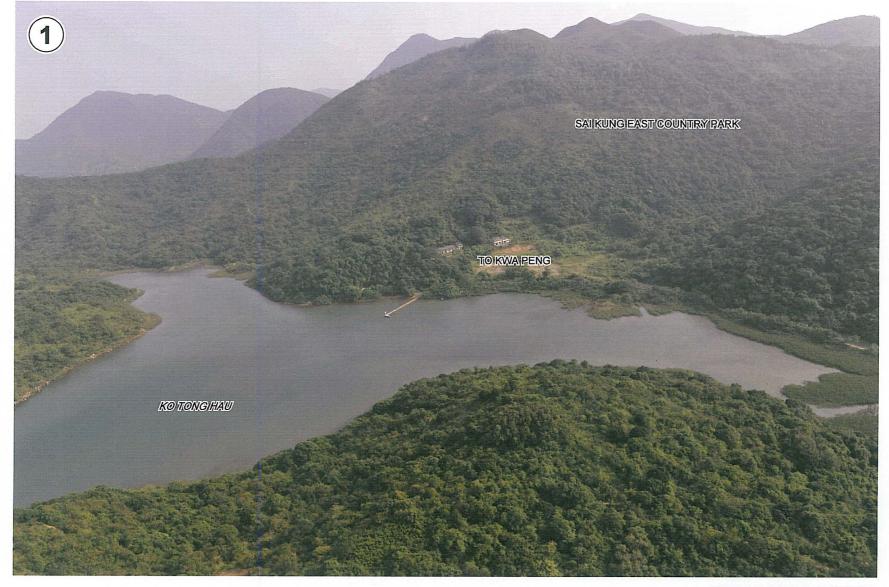


PHOTO 1 TAKEN FROM HELICOPTER

EXTRACT PLAN PREPARED ON 27.5.2013 BASED ON SITE PHOTO TAKEN ON 19.10.2011

SITE PHOTO - EXISTING PHYSICAL FEATURES

TO KWA PENG

PLANNING DEPARTMENT



REFERENCE No.

M/NP/TKP/12/1

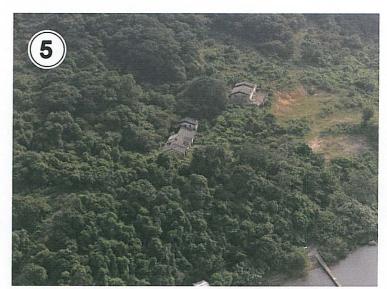
FIGURE 5c





FALLOW AGRICULTURAL LAND, WOODLAND, SHRUBLAND AT TO KWA PENG





FUNG SHUI WOOD BEHIND TO TO KWA PENG VILLAGE

PHOTO 5 TAKEN FROM HELICOPTER

EXTRACT PLAN PREPARED ON 18.1.2013 BASED ON SITE PHOTOS TAKEN ON 17.8.2011, 19.10.2011 AND 27.8.2012

SITE PHOTOS - EXISTING PHYSICAL FEATURES

TO KWA PENG

PLANNING DEPARTMENT

ENT

REFERENCE No.

M/NP/TKP/12/1

FIGURE 5d





MUDFLAT AND MANGROVE / MARSH ALONG THE COAST FRONTING KO TONG HAU

SITE PHOTOS - EXISTING PHYSICAL FEATURES

TO KWA PENG

PLANNING DEPARTMENT



REFERENCE No. M/NP/TKP/12/1 **FIGURE** 5e

EXTRACT PLAN PREPARED ON 19.9.2013 BASED ON SITE PHOTOS TAKEN ON 17.8.2011 AND 20.4.2012



ESTUARINE MANGROVE AND A NATURAL STREAM NEAR THE WESTERN BOUNDARY OF THE AREA

SITE PHOTO - EXISTING PHYSICAL FEATURES

PLANNING DEPARTMENT



TO KWA PENG

REFERENCE No. M/NP/TKP/12/1 **FIGURE** 5f

EXTRACT PLAN PREPARED ON 19.9.2013 BASED ON SITE PHOTO TAKEN ON 9.9.2011



PHOTO 8b TAKEN FROM HELICOPTER

SITE PHOTO - EXISTING PHYSICAL FEATURES

TO KWA PENG

PLANNING DEPARTMENT



REFERENCE No. M/NP/TKP/12/1 **FIGURE** 5g

EXTRACT PLAN PREPARED ON 17.9.2013 BASED ON SITE PHOTO TAKEN ON 18.2.2013



PHOTO 8c TAKEN FROM HELICOPTER

SITE PHOTO - EXISTING PHYSICAL FEATURES

PLANNING DEPARTMENT



TO KWA PENG

EXTRACT PLAN PREPARED ON 17.9.2013 BASED ON SITE PHOTO TAKEN

ON 18.2.2013

REFERENCE No. M/NP/TKP/12/1 **FIGURE** 5h



PHOTO 9a TAKEN FROM HELICOPTER

SITE PHOTO - EXISTING PHYSICAL FEATURES

PAK TAM AU

PLANNING DEPARTMENT



M AU

M/NP/TKP/12/1

REFERENCE No.

FIGURE 5i

EXTRACT PLAN PREPARED ON 12.9.2013 BASED ON SITE PHOTO TAKEN ON 19.10.2011

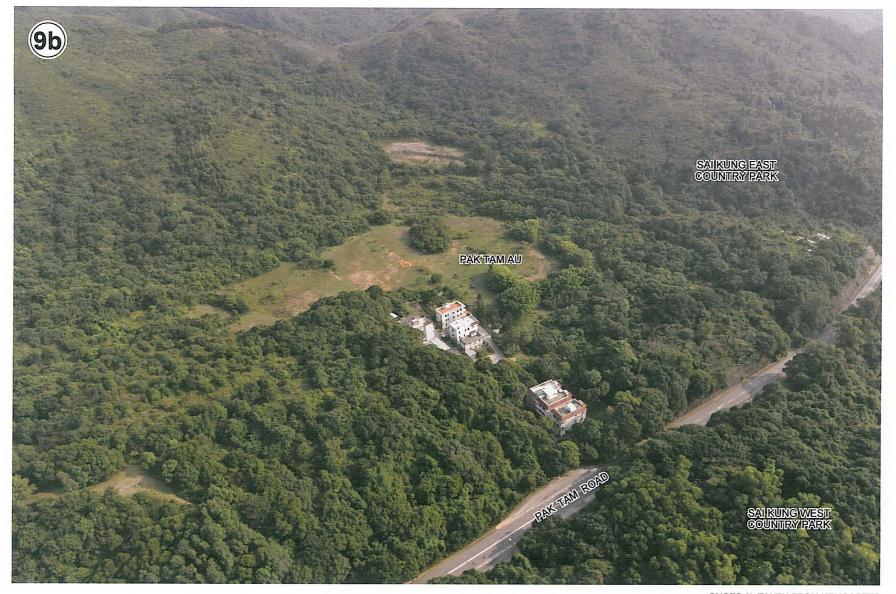


PHOTO 9b TAKEN FROM HELICOPTER

EXTRACT PLAN PREPARED ON 12.9.2013 BASED ON SITE PHOTO TAKEN ON 19.10.2011

SITE PHOTO - EXISTING PHYSICAL FEATURES

PAK TAM AU

PLANNING DEPARTMENT



REFERENCE No.

M/NP/TKP/12/1

FIGURE

5j







FALLOW AGRICULTURAL LAND AND WOODLAND / SHRUBLAND AT PAK TAM AU

EXTRACT PLAN PREPARED ON 27.9.2013 BASED ON SITE PHOTOS TAKEN ON 25.4.2012, 5.10.2012 AND 17.10.2012.

SITE PHOTOS - EXISTING PHYSICAL FEATURES

PAK TAM AU

PLANNING DEPARTMENT



REFERENCE No.
M/NP/TKP/12/1

FIGURE 5k





POND WITH LOTUS AND OTHER WATER PLANTS AT PAK TAM AU





NATURAL STREAM AND PARTIALLY TRAINED STREAM AT PAK TAM AU

EXTRACT PLAN PREPARED ON 27.9.2013 BASED ON SITE PHOTOS TAKEN ON 25.4.2012 AND 5.10.2012

SITE PHOTOS - EXISTING PHYSICAL FEATURES

PAK TAM AU

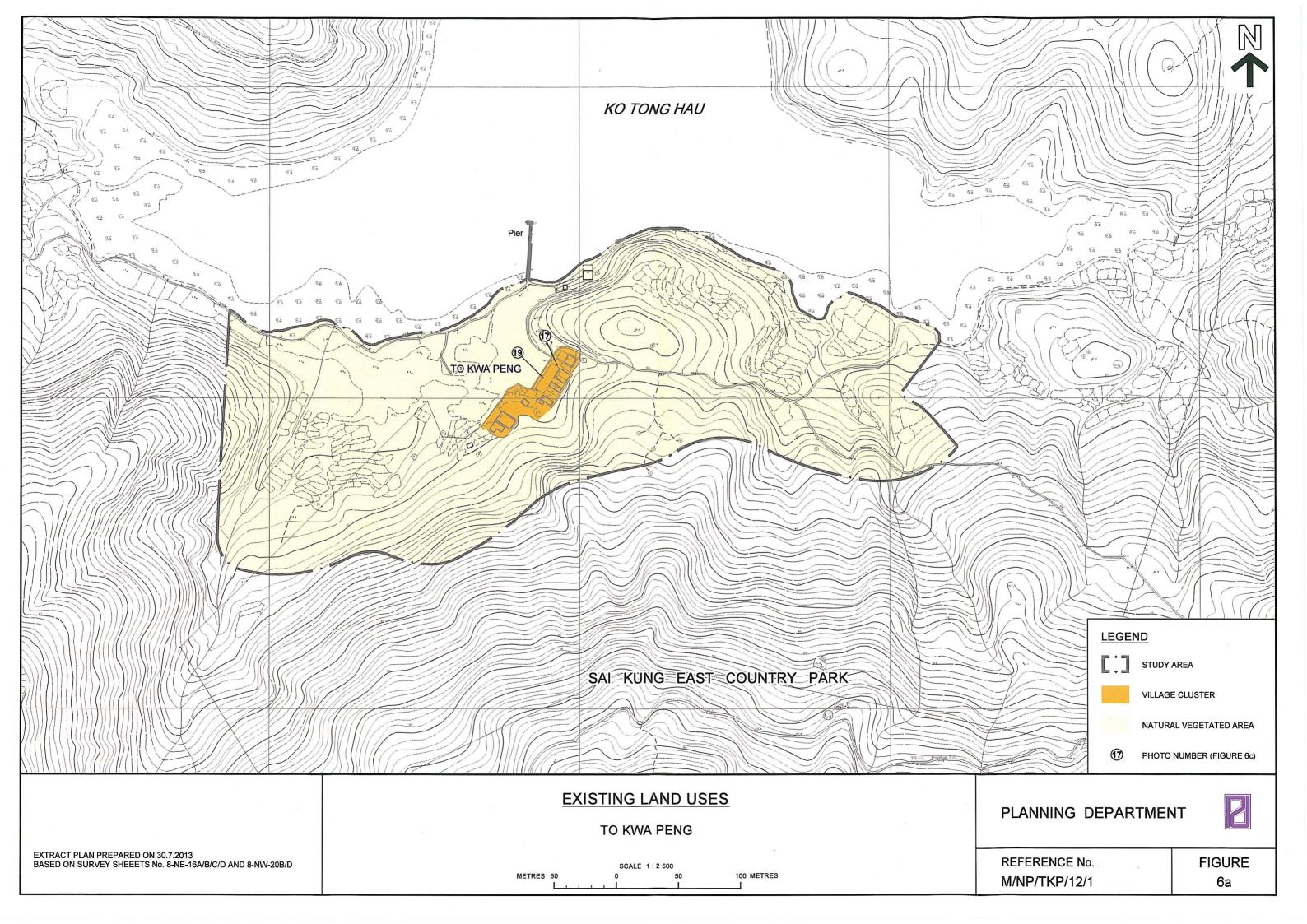
PLANNING DEPARTMENT

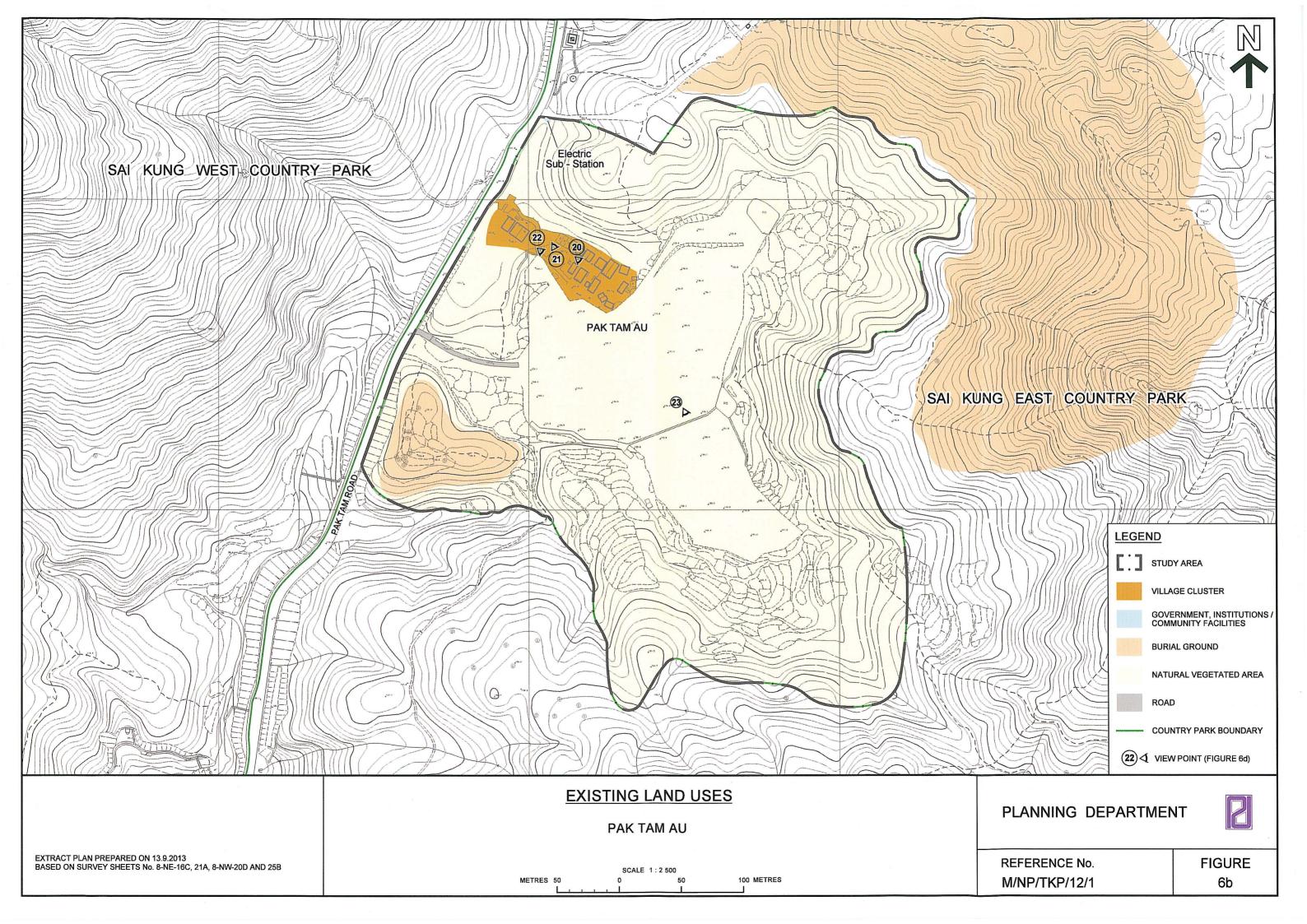
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M/NP/TKP/12/1



FIGURE 51





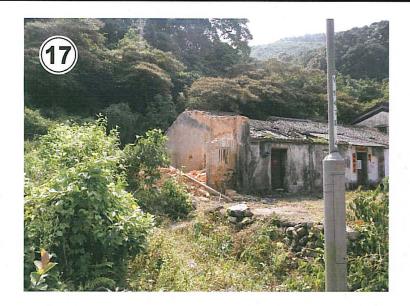




PHOTO 18 TAKEN FROM HELICOPTER



A ROW OF SEVERAL VILLAGE HOUSES WITH SOME RUINS AND IN DILAPIDATED CONDITIONS

SITE PHOTOS - EXISTING LAND USES

PLANNING DEPARTMENT



TO KWA PENG

REFERENCE No. M/NP/TKP/12/1 **FIGURE** 6c

EXTRACT PLAN PREPARED ON 20.6.2013 BASED ON SITE PHOTOS TAKEN ON 19.10.2011, 27.8.2012 AND 5.10.2012









VILLAGE HOUSES AT PAK TAM AU WITH SOME IN RUINS

SITE PHOTOS - EXISTING LAND USES

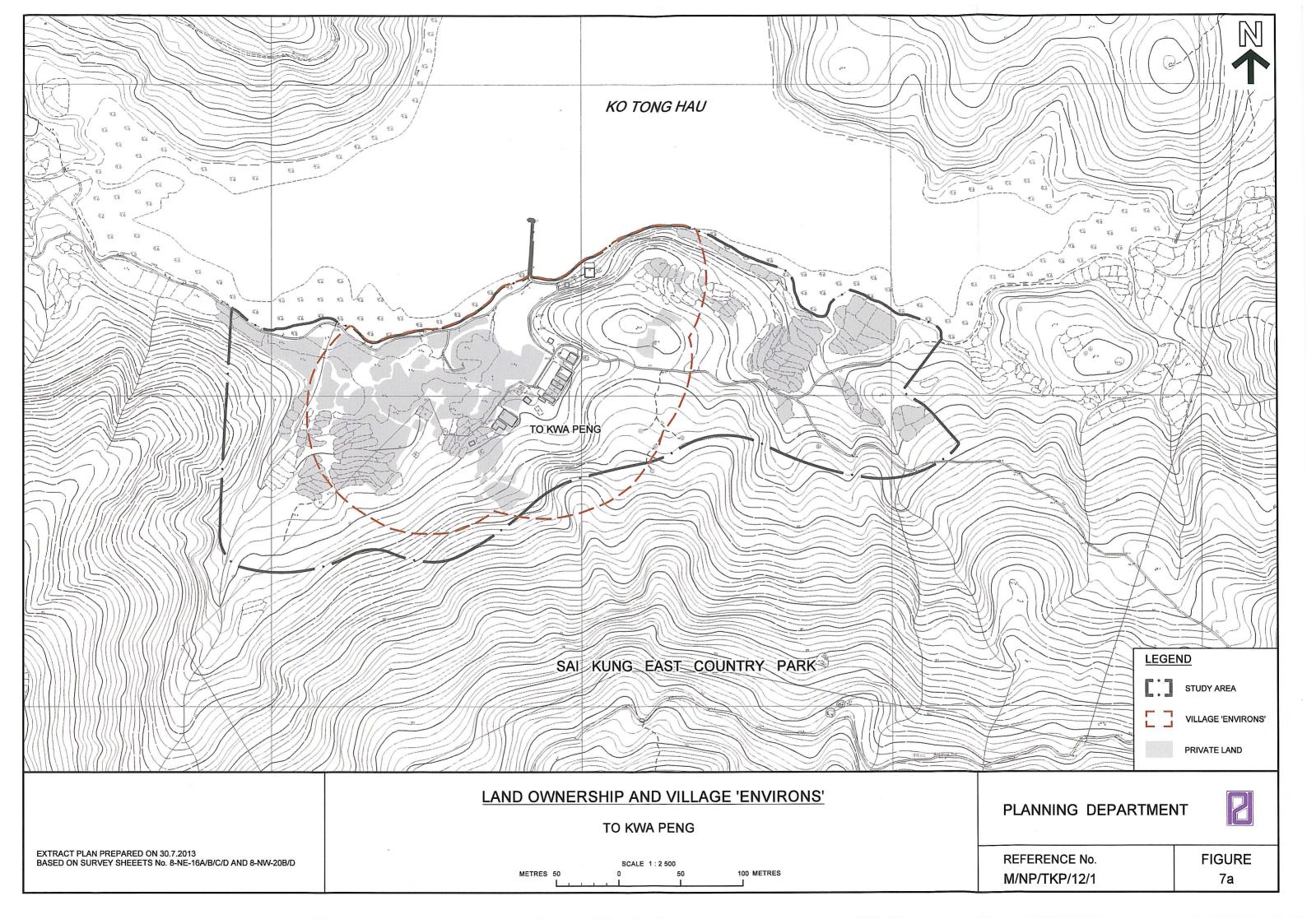
PAK TAM AU

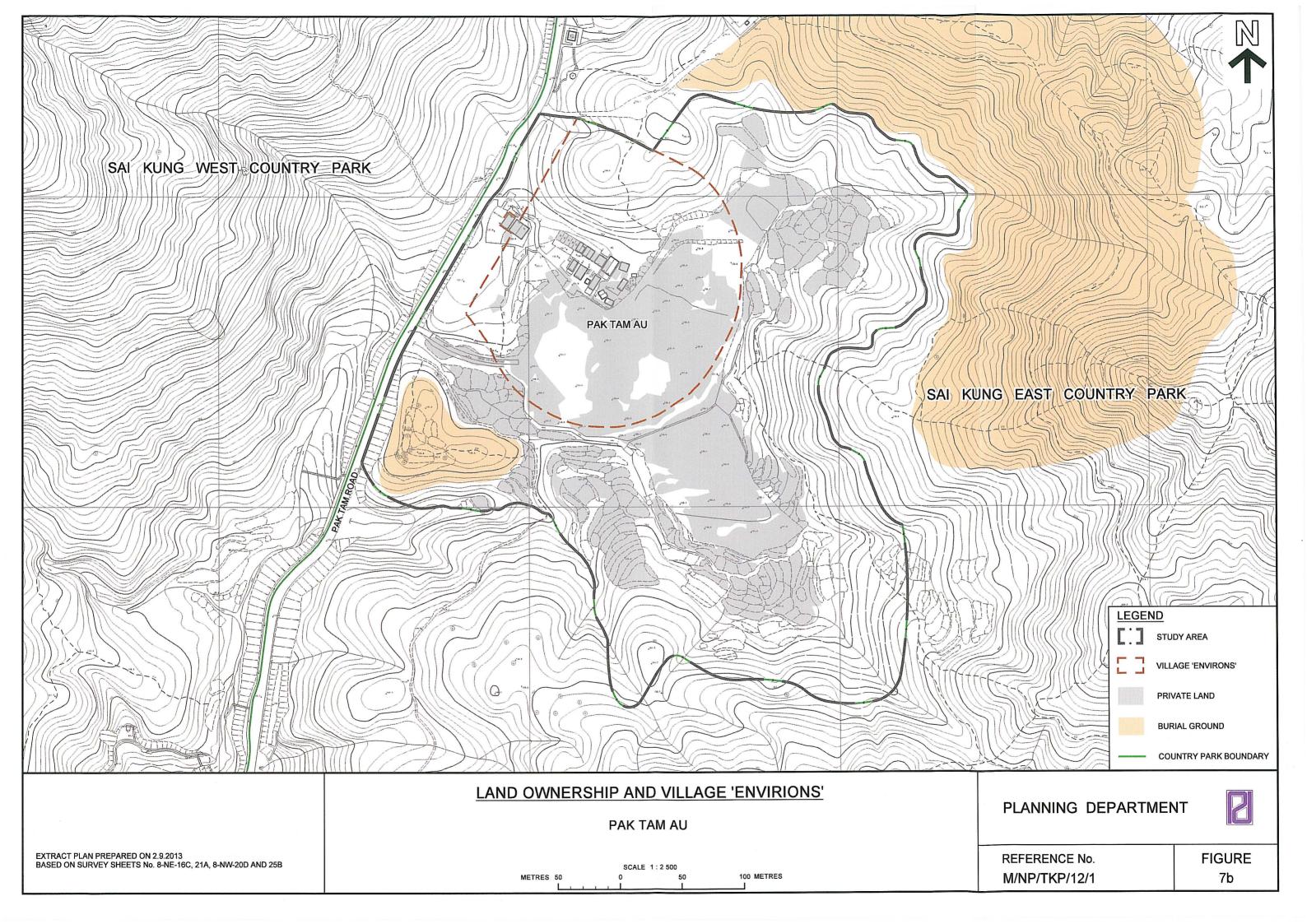
PLANNING DEPARTMENT

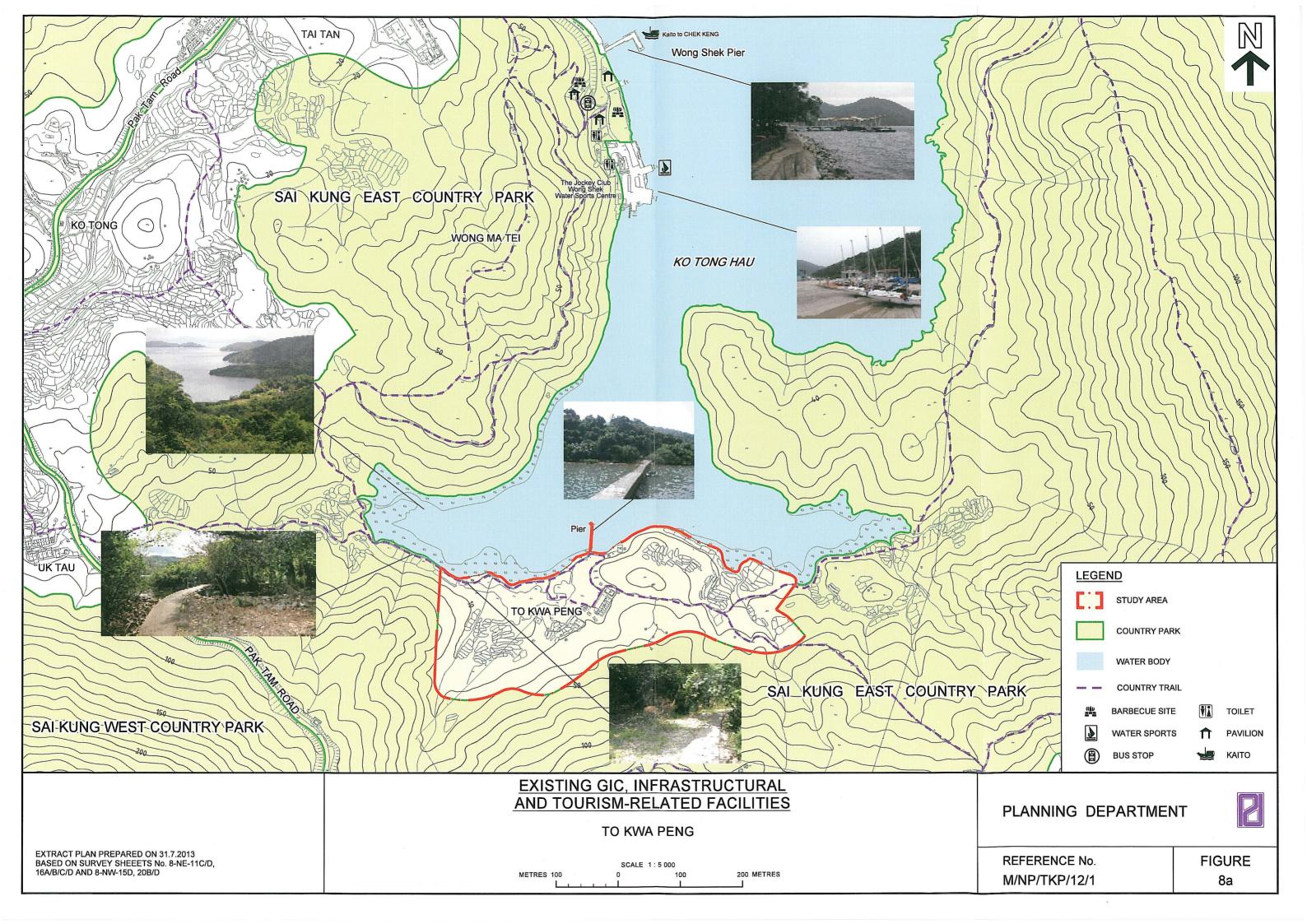


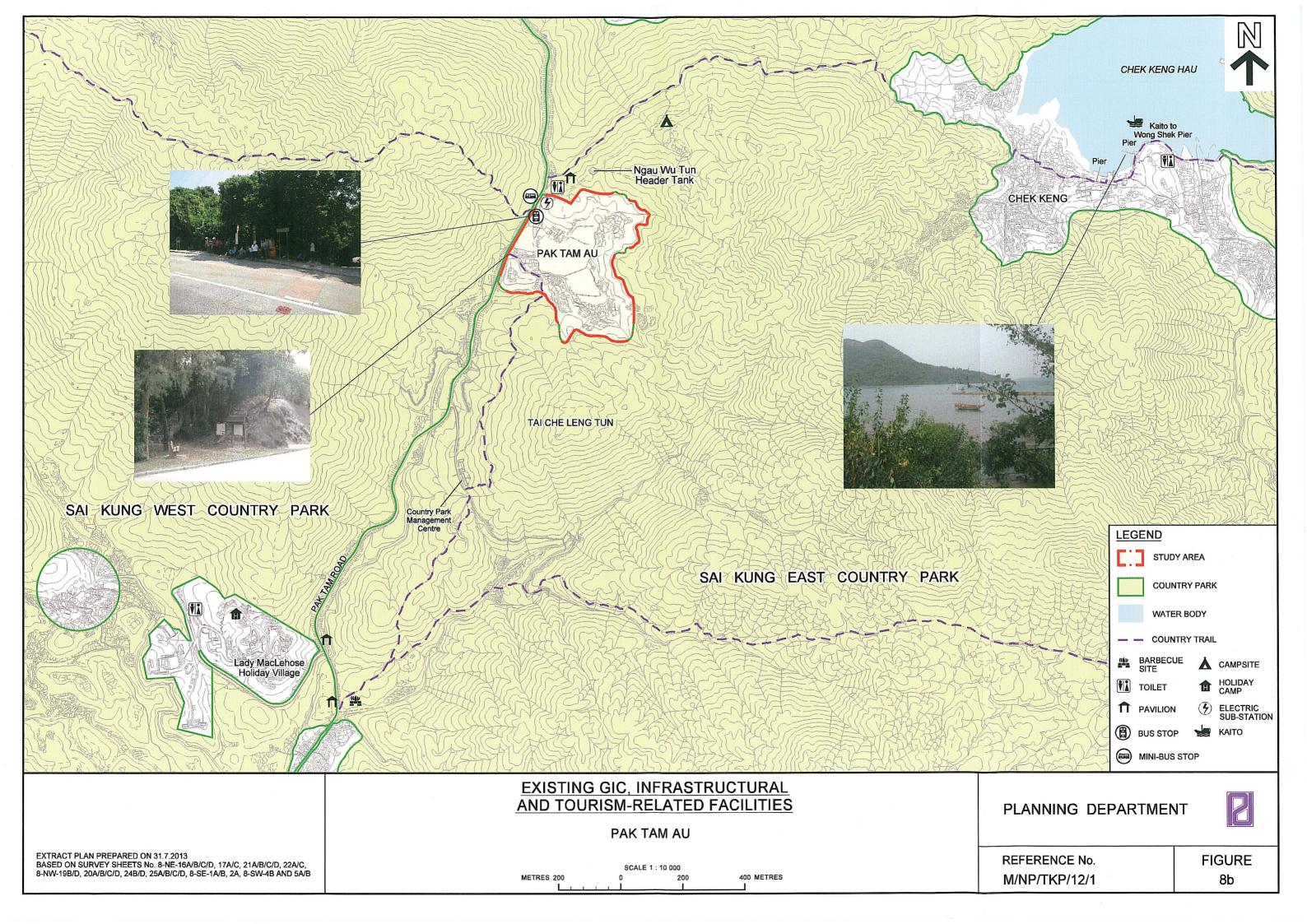
REFERENCE No. M/NP/TKP/12/1 **FIGURE** 6d

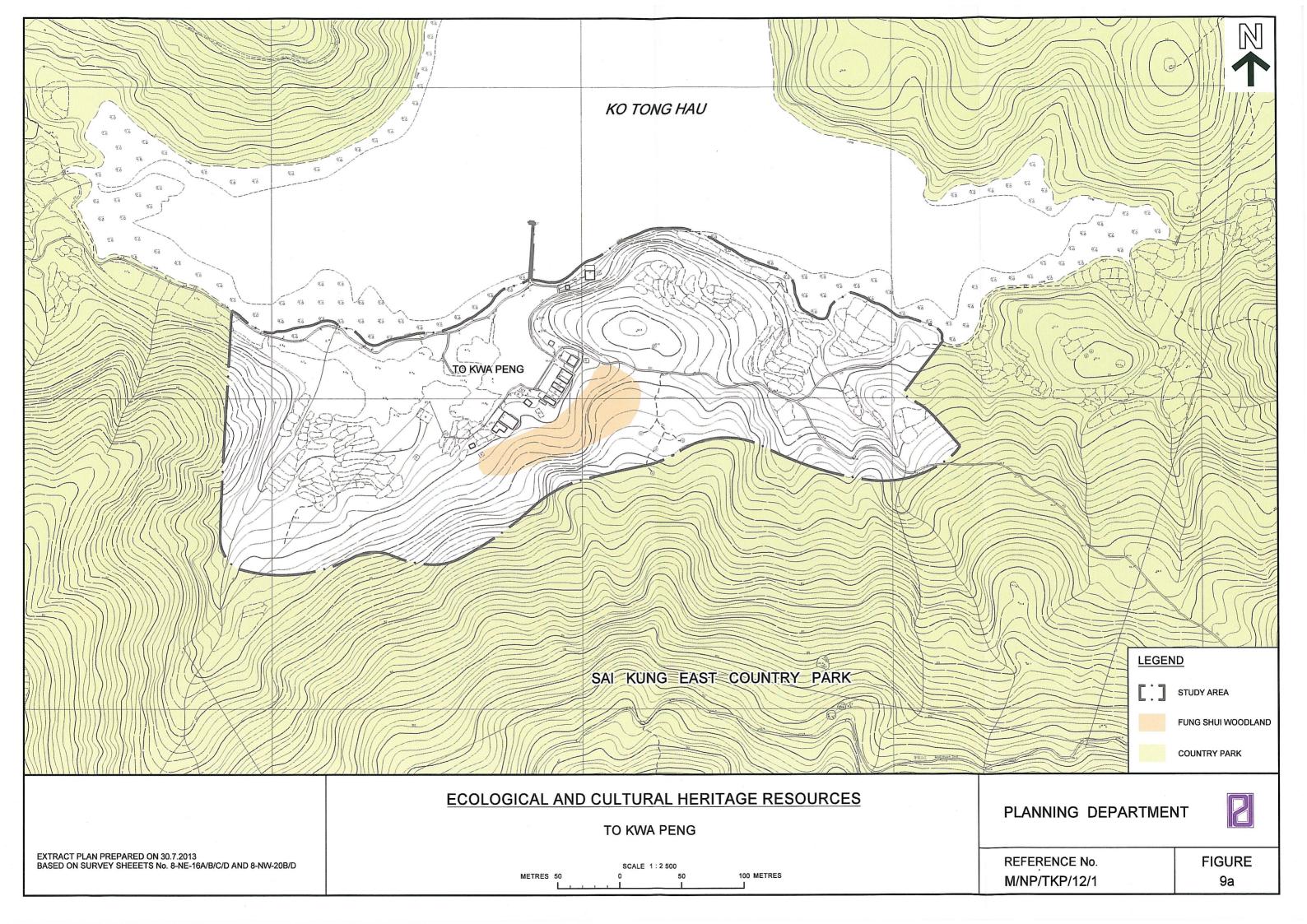
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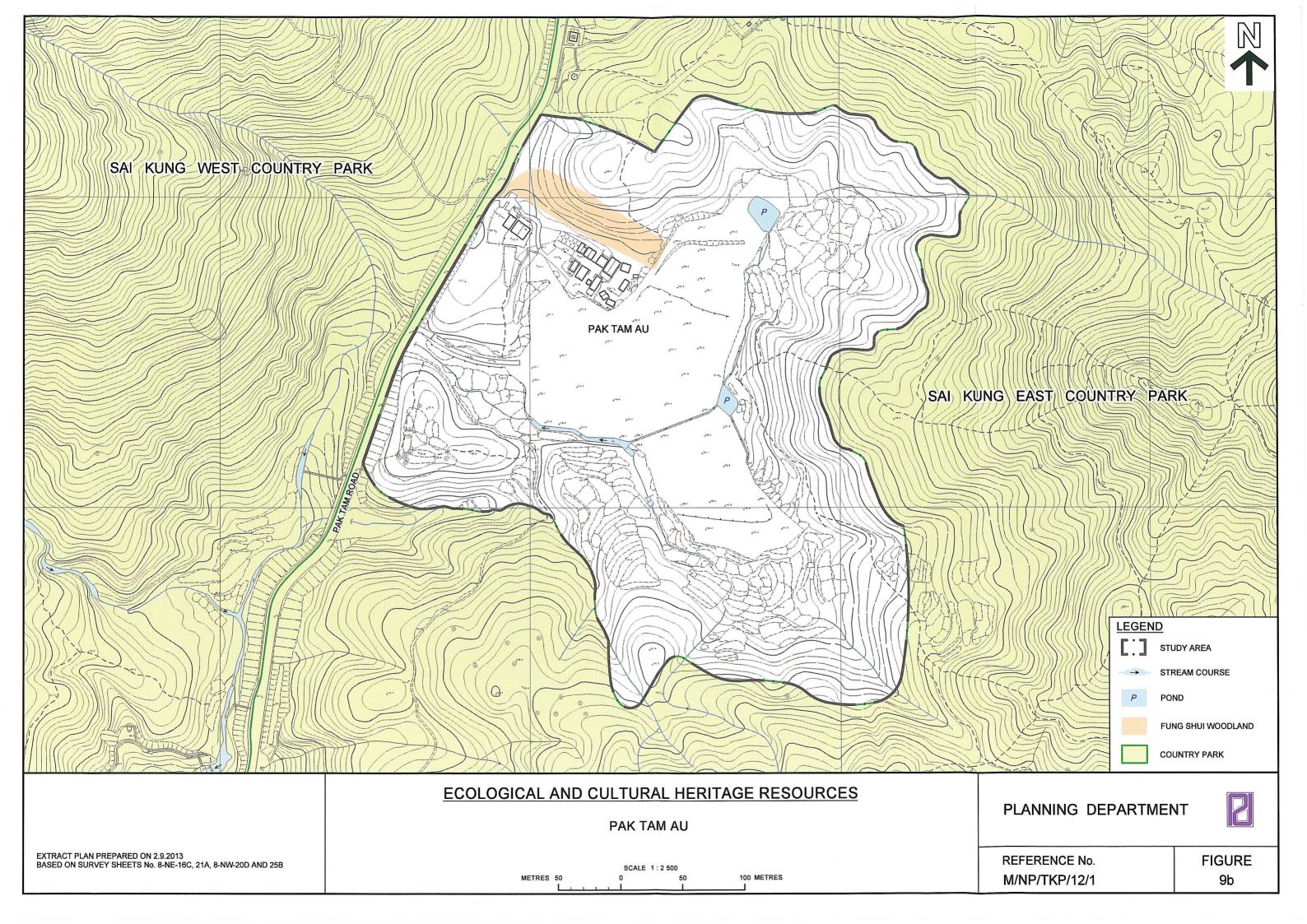


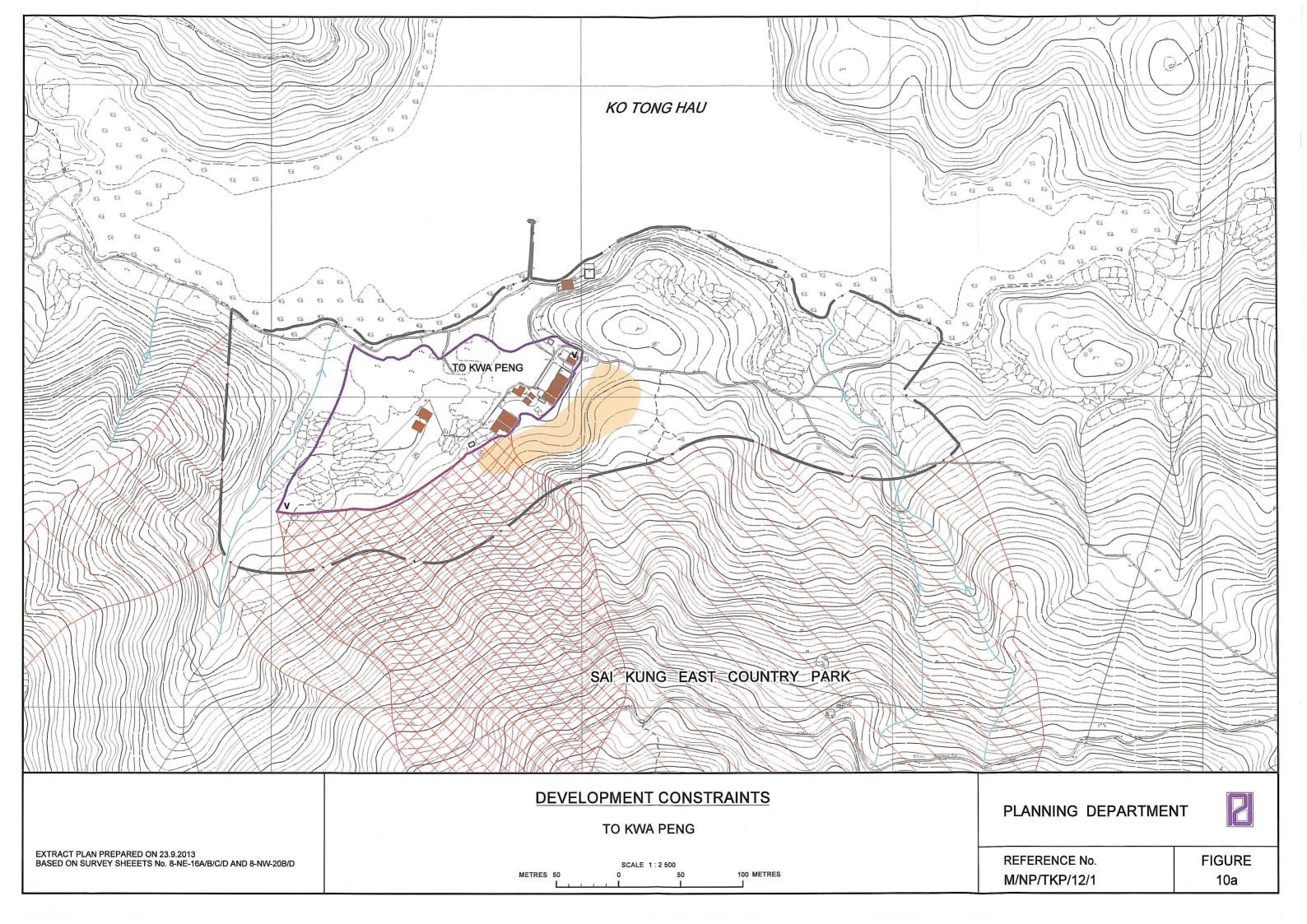


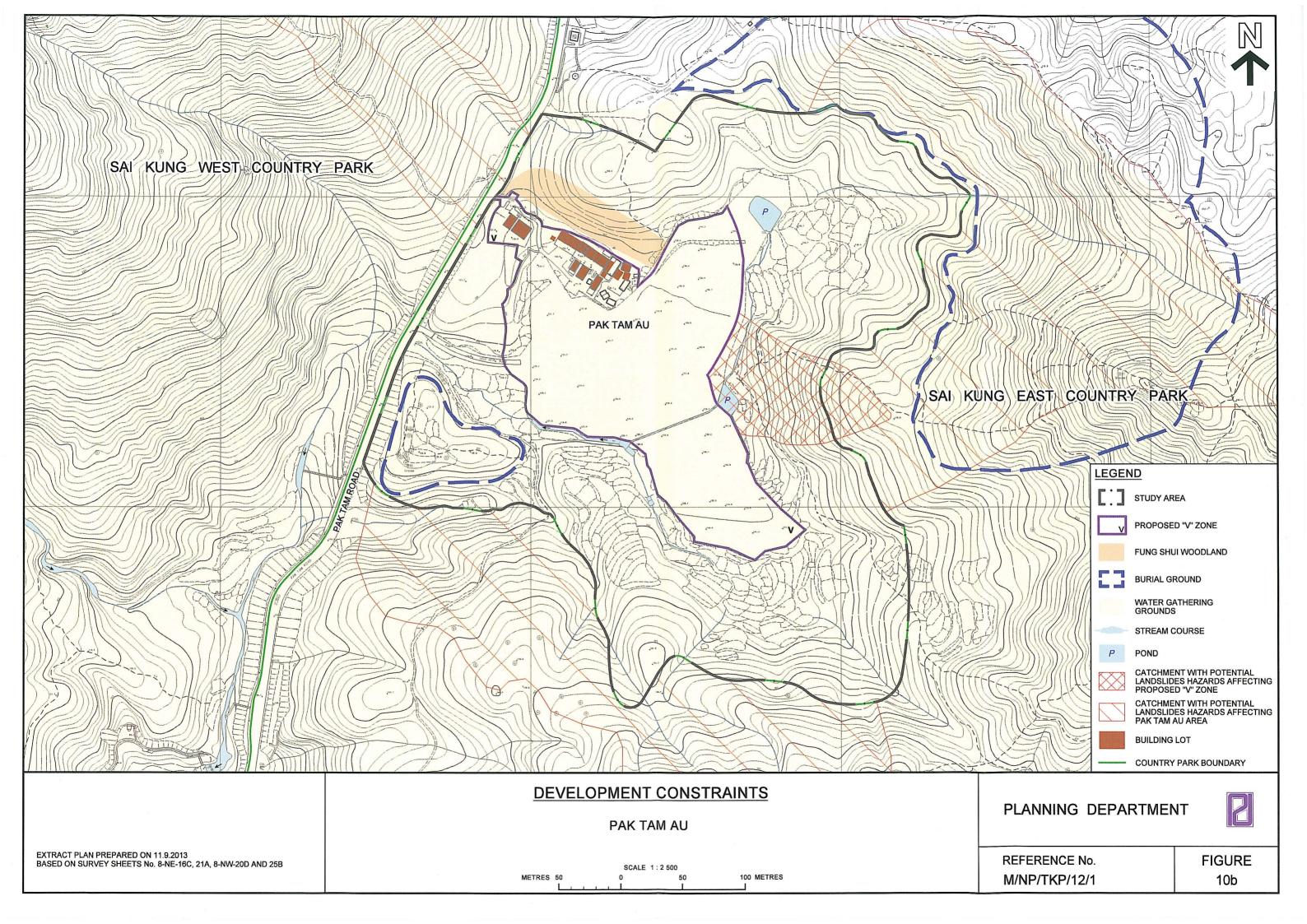














AERIAL PHOTO TAKEN ON 2/12/2008



AERIAL PHOTO TAKEN ON 24/11/2009

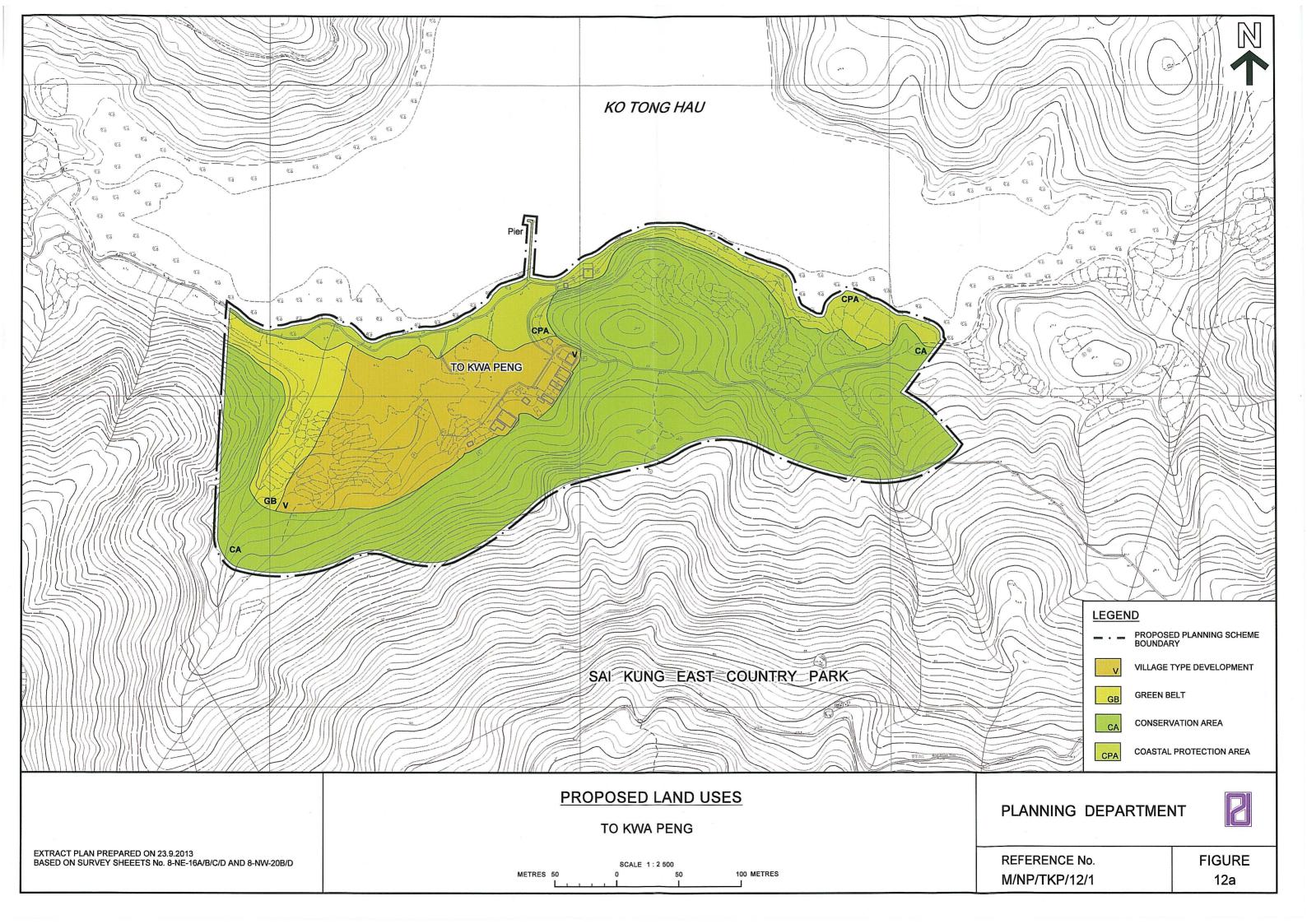
EXCAVATION WORKS IN TO KWA PENG

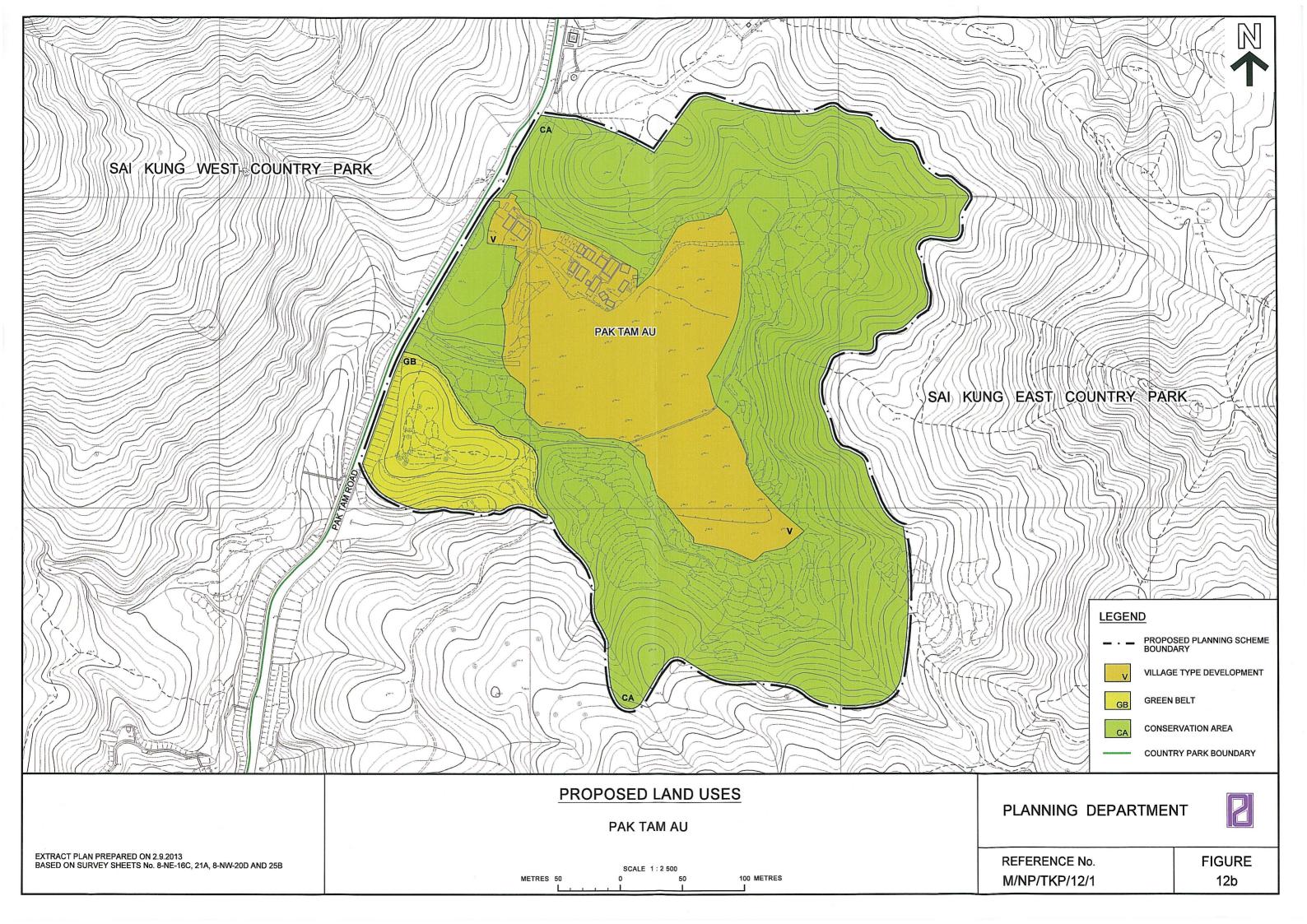
PLANNING DEPARTMENT



REFERENCE No. M/NP/TKP/12/1

FIGURE 11





Summary of the Planning Applications To Kwa Peng and Pak Tam Au (as at August 2013)

To Kwa Peng (Plan A(i))

Total	13	
DPA		
1.	Number of rejected planning applications (a)	3
2.	Number of withdrawn planning applications (b)	10

(a) Rejected Applications

No.	Application No.	Proposed Development	Date of Consideration	Rejection Reasons
1.	A/DPA/NE-TKP/3	Proposed 19 New Territories Exempted Houses	24.2.2012	R1 & R3
		(NTEHs) (Small Houses)		
2.	A/DPA/NE-TKP/4	Proposed 16 Houses New Territories Exempted House (NTEHs) (Small Houses)	22.7.2011	R4 to R8
	A/DPA/NE-TKP/5	Proposed 2 New Territories Exempted Houses (NTEHs) (Small Houses)	24.2.2012	R2 & R3

Remarks:

The applicants of the above three planning applications applied for s.17 reviews under the Town Planning Ordinance, which were subsequently withdrawn.

Rejection Reasons

- R1. The proposed developments did not comply with the interim criteria for consideration of application for NTEH/Small House in the New Territories as they were not compatible with the surrounding natural environment and the applicants failed to demonstrate that the proposal would not cause adverse geotechnical, landscape, water quality, environmental and ecological impacts on the area.
- R2. The proposed developments did not comply with the interim criteria for consideration of application for NTEH/Small House in the New Territories as they were not compatible with the surrounding natural environment and the applicants failed to demonstrate that the proposal would not cause adverse landscape impact on the area.
- R3. The approval of the application would set an undesirable precedent for other similar applications in the area, the cumulative impact of which would result in a general degradation of the surrounding environment.
- R4. The proposed Small House developments were not compatible with the existing natural environment in the area.
- R5. The proposed effluent disposal arrangement by septic tanks was considered unacceptable due to the adverse water quality impact on the nearby water bodies
- R6. The proposed developments would affect the natural environment and ecology of the area which was in close proximity to the mudflat and mangroves, and surrounded by the Sai Kung East Country Park. The applicant failed to demonstrate that the proposed Small Houses would not cause adverse environmental and ecological impacts on the area.
- R7. The sites were remote. The applicant failed to demonstrate that proper access arrangement could be provided for the proposed Small Houses.
- R8. The approval of the application would set an undesirable precedent for similar applications in the area, and the cumulative impact on the landscape, ecology and environment would result in a degradation of the natural environment.

(b) Withdrawn Applications

	Application No.	Proposed Development	
1.	A/DPA/NE-TKP/12	Proposed 16 New Territories Exempted Houses	
		(NTEHs) (Small Houses) and Utility Installation for Private Project (Sewage Treatment Plant)	
2.	A/DPA/NE-TKP/14	Proposed Rebuilding of House (New Territories Exempted House)	
3.	A/DPA/NE-TKP/15	Proposed Rebuilding of House (New Territories Exempted House)	
4.	A/DPA/NE-TKP/16	Proposed Rebuilding of House (New Territories Exempted House)	
5.	A/DPA/NE-TKP/17	Proposed Rebuilding of House (New Territories Exempted House)	
6.	A/DPA/NE-TKP/18	Proposed Rebuilding of House (New Territories Exempted House)	
7.	A/DPA/NE-TKP/19	Proposed Rebuilding of House (New Territories Exempted House)	
8.	A/DPA/NE-TKP/20	Proposed Rebuilding of House (New Territories Exempted House)	
9.	A/DPA/NE-TKP/21	Proposed 21 New Territories Exempted Houses	
		(NTEHs) (Small Houses) and Utility Installation for Private Project (Sewage Treatment Plant)	
10	A/DPA/NE-TKP/22	Proposed 12 New Territories Exempted Houses	
		(NTEHs) (Small Houses) and Utility Installation for Private Project (Sewage Treatment Plant)	

Pak Tam Au (Plan A(ii))

Total	number of planning applications since the gazetting of the draft DPA Plan	9
on 7.1	.2011	
1.	Number of approved planning applications (a)	1
2.	Number of rejected planning applications (b)	6
3.	Number of withdrawn planning applications (c)	2

(a) Approved Application

	Application No.	Proposed Development	Date of Consideration	Approval
				Conditions
1	A/DPA/NE-TKP/1	Proposed 3 New Territories Exempted Houses	22.7.2011	A1 to A4
		(NTEHs) (Small Houses)		

Approval Conditions

- A1. The submission and implementation of landscape proposal and tree preservation plan to the satisfaction of the Director of Planning or of the TPB.
- A2. The provision of fire-fighting access, water supplies and fire service installations to the satisfaction of the Director of Fire Services or of the TPB.
- A3. The submission and implementation of drainage proposal to the satisfaction of the Director of Drainage Services or of the TPB.

A4. The submission of the proposal for and the provision of septic tanks and soakaway pits or a more effective facility for effluent disposal to the satisfaction of the Director of Environmental Protection or of the TPB.

(b) Rejected Applications

	Application No.	Proposed Development Date of Consideration		Rejection
				Reasons
1.	A/DPA/NE-TKP/7	Proposed New Territories Exempted House	22.6.2012	R1 to R2
		(NTEH) (Small House)		
2.	A/DPA/NE-TKP/8	Proposed New Territories Exempted House	22.6.2012	R1 to R2
		(NTEH) (Small House)		
3.	A/DPA/NE-TKP/9	Proposed New Territories Exempted House	22.6.2012	R1 to R2
		(NTEH) (Small House)		
4.	A/DPA/NE-TKP/10	Proposed New Territories Exempted House	22.6.2012	R1 to R2
		(NTEH) (Small House)		
5.	A/DPA/NE-TKP/11	Proposed New Territories Exempted House	24.2.2012	R1 to R2
		(NTEH) (Small House)		
6.	A/DPA/NE-TKP/13	Proposed New Territories Exempted House	22.6.2012	R1 to R2
		(NTEH) (Small House)		

Remarks:

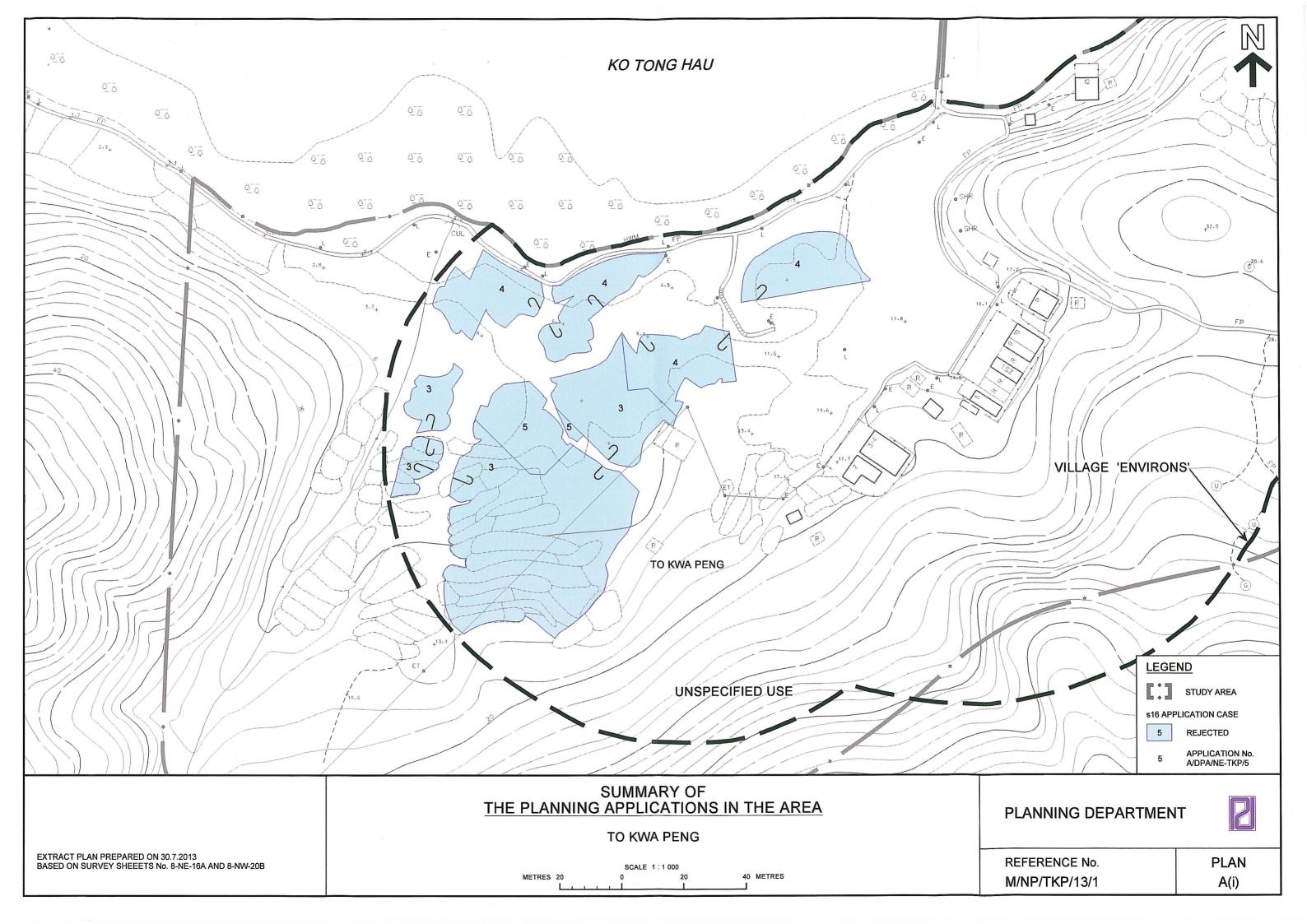
Subsequent to rejection of five of the above planning applications (No. A/DPA/NE-TKP/7 to 10 and 13) by the TPB on review on 22.6.2012, the applicants lodged appeals against the TPB's decision under the Town Planning Ordinance and these appeals would be heard by the Town Planning Appeal Board in due course.

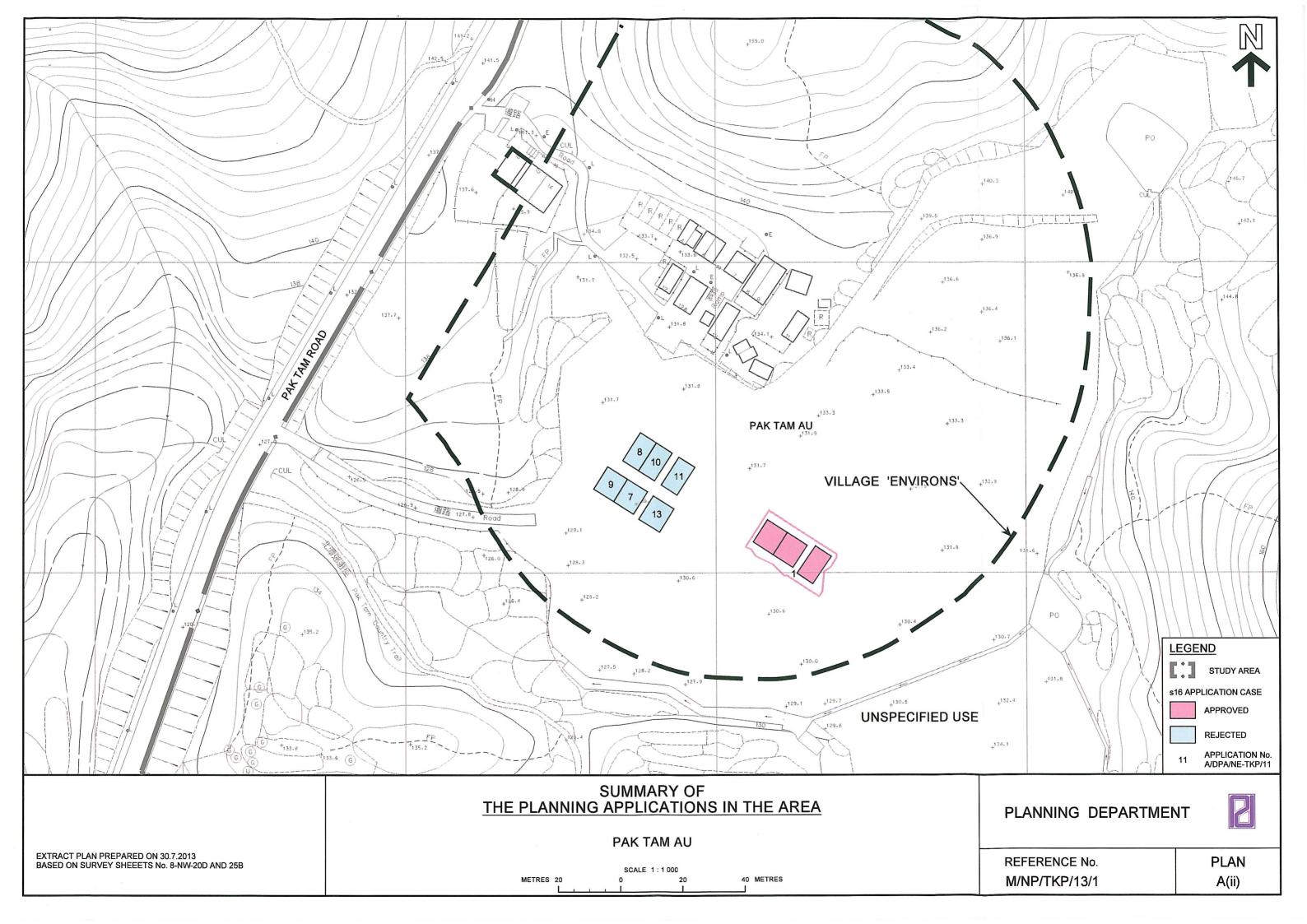
Rejection Reasons

- R1. The proposed development did not comply with the interim criteria for consideration of application for New Territories Exempted House/Small House in the New Territories as the site was located within the Upper Indirect Water Gathering Grounds where public sewer was not available and the applicant failed to demonstrate that the proposal would not cause adverse water quality impact on the area.
- R2. The approval of the application would set an undesirable precedent for other similar applications in the area, the cumulative impact of which would result in an adverse impact of the water quality in the area.

(c) Withdrawn Applications

	Application No.	Proposed Development	
1.	A/DPA/NE-TKP/2	Proposed 5 New Territories Exempted Houses	
		(NTEHs) (Small Houses)	
2.	A/DPA/NE-TKP/6	Proposed New Territories Exempted House	
		(NTEH) (Small House)	





Planning assessments on the proposed "V" zone boundaries received from the Indigenous Inhabitant Representative (IIR) of To Kwa Peng on 2.4.2012

Introduction

1. On 2.4.2012, the IIR of To Kwa Peng submitted the proposed "V" zone boundaries for To Kwa Peng to facilitate preparation of the OZP.

Proposals

2. The IIR of To Kwa Peng proposes to zone all the private land within the 300-foot village 'environs' and part of the private land beyond the village 'environs' as "V". A location plan showing the indicative boundaries of the proposed "V" zone submitted by him is attached at **Figure A**.

Planning Assessments

- 3. According to the indicative boundaries at **Figure A**, the proposed "V" zone stretches across a sizable area of 5 ha and covers the coastal areas adjoining the mangrove and mudflat at Ko Tong Hau, a natural stream, secondary woodland and *fung shui* wood and sloping areas, etc. The private land thereat, which scatters across the area, is fragmented and irregular in configuration. The proposals are not substantiated with any background studies or assessments on any aspects, such as landuse planning, conservation value, the environmental and infrastructural constraints and landscape character, etc. of the To Kwa Peng area.
- 4. On the ecological aspect, Director of Agriculture, Fisheries and Conservation (DAFC) comments that the proposed "V" zone covers the riparian zone of a stream on the western end of the OZP boundary, some secondary woodland and the *fung shui* woodland in To Kwa Peng. He trusts that the proposed "V" zone as shown on the draft OZP No. S/NE-TKP/B, of which he has no comment, is fully justified and adequate for meeting the needs of village development, any further village development encroaching into woodland and other ecologically sensitive habitats should be carefully controlled.
- 5. On the environmental aspect, Director of Environmental Protection (DEP) advises that there is no existing or planned sewer for the To Kwa Peng area. Water quality of the receiving water body which is a semi-enclosed bay may be a concern, and he considers that the area for "V" should be as small as possible. Any proposed Small House should have the minimum clearance requirement from any existing streams as stipulated in "Practice Note for Professional Person" (ProPECC PN) 5/93.
- 6. On the geotechnical aspect, Head (Geotechnical Engineering Office), Civil Engineering and Development Department (H(GEO), CEDD) advises that the southern part, western part and northeastern corner of the proposed "V", especially those located near the

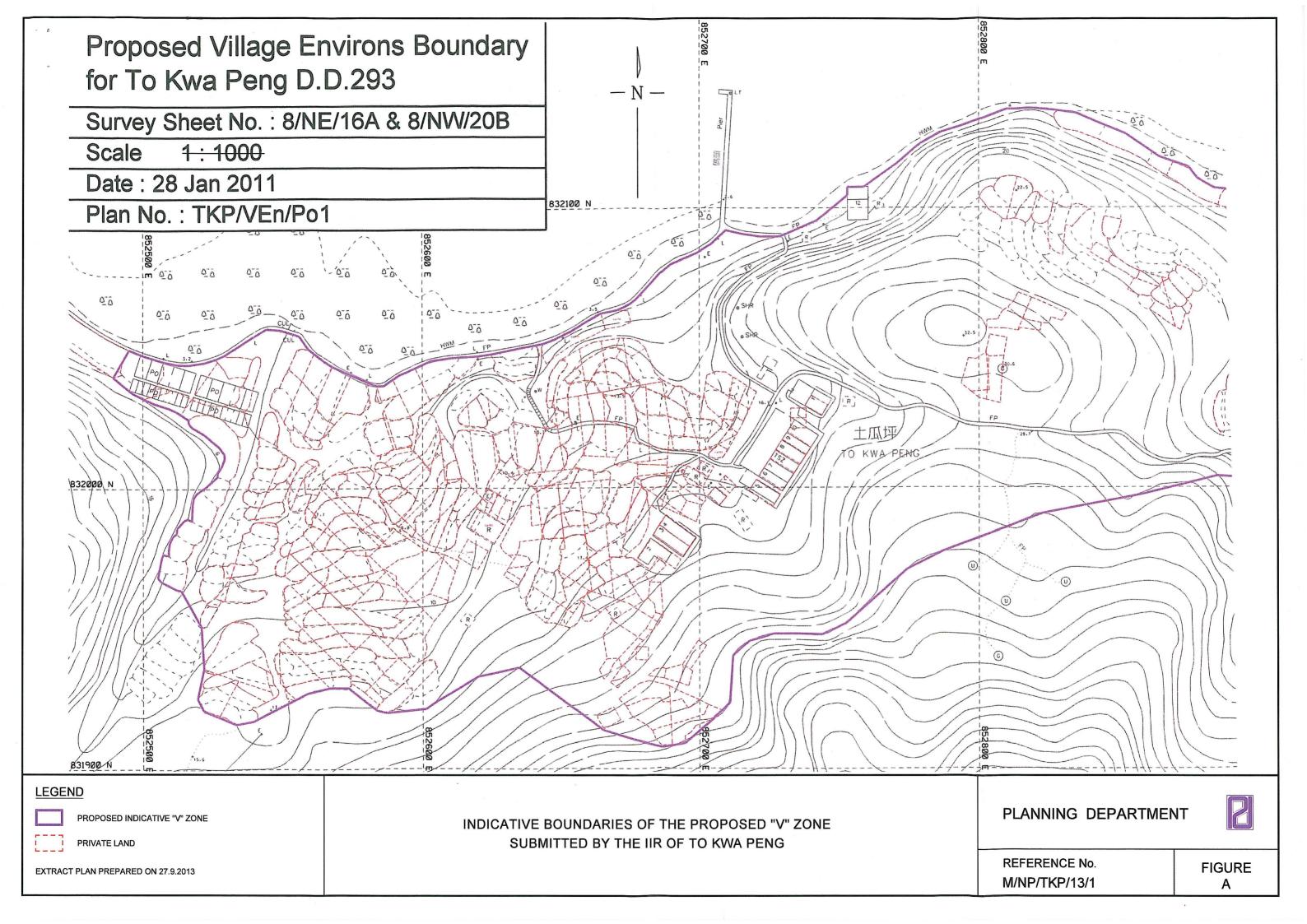
proposed "V" zone boundary, are overlooked by steep natural hillsides and may be affected by potential natural terrain landslide hazards. For the future development in these areas, the developer may be required to carry out a natural terrain hazard study and provide suitable hazard mitigation measures, if found necessary, as part of the development.

- 7. On traffic aspect, although Commissioner for Transport (C for T) has no-principle objection to the proposal, he advises that the subject proposal is more or less double of the planned "V" zone at To Kwa Peng. However, To Kwa Peng is only accessible by a footpath off Pak Tam Road, a restricted road within the Sai Kung country park, at a distance of over 700m. With consideration of its remote nature, the possible traffic impact could be tolerated.
- 8. Given the natural environment with conservation and landscape value coupled with its inaccessibility due to lack of direct vehicular access, it is intended to consolidate village so as to avoid undesirable disturbances to the natural environment and overtaxing the limited infrastructure in the To Kwa Peng area. Hence, it is considered appropriate to zone the existing village settlements with its surrounding areas as "V" for Small House development.
- 9. Besides, it should be noted that land ownership is only one of the considerations in drawing up the boundaries of the "V" zone. Other factors, such as the village 'environs', the number of outstanding Small House applications, Small House demand forecast, local topography and site constraints have to be taken account. Areas of difficult terrain, dense vegetation, stream courses and burial grounds have also to be avoided as far as possible. Therefore, the proposed "V" zone boundaries put forth by the IIR of To Kwa Peng is considered undesirable.

Attachment

Figure A

Indicative boundaries of the proposed "V" zone submitted by the IIR of To Kwa Peng



Planning assessments on the sustainable development planning and ecological conservation proposals for Pak Tam Au received from AF Architecture & Planning Consultants Ltd on 15.5.2013

Introduction

1. On 15.5.2013, the captioned sustainable development planning and ecological conservation proposals for Pak Tam Au received from AF Architecture & Planning Consultants Ltd (the Consultants) to facilitate preparation of the OZP.

Proposals

- 2. The proposed developments put forth by the Consultants mainly comprise a total of 76 nos. of Small Houses, open space with an eating place, a youth hostel, an organic hobby farm, and an ancillary car park, etc., with an access road/emergency vehicular access (EVA), two communal sewerage treatment plants (STPs) and landscape planting. A copy of the Master Layout Plan (MLP) and Zoning Plan area attached at **Figures B and** C respectively. The development and zoning proposals are summarised as follows:
 - (a) A total of 76 nos. of Small Houses, which are concentrated at the central and south-eastern portions of the Pak Tam Au area, are proposed to be zoned "V" and implemented in six phases.
 - (b) A "Recreation" ("REC") zone covering an existing lotus pond at the north-east is proposed mainly for open space use. An eating place with alfresco cafe providing non-alcoholic drinks beside the existing lotus pond is proposed but no detailed proposal has been provided.
 - (c) In the eastern corner of the "REC" zone, one youth hostel with a covered area of 1,782 m² (15,000 ft²) and 3 storeys in height as well as a total floor area (TFA) of about 4,182 m² (45,000 ft²) is proposed to promote tourism. The youth hostel is composed of about 929 m² (10,000 ft²) total floor area (TFA) for holding seminar related to environmental conservation, about 2,277 m² (24,500 ft²) TFA for 122 nos. of hostel rooms of about 19 m² (200 ft²) TFA for each room, and the remaining area of about 976 m² (10,500 ft²) TFA for communal staircases. It is proposed that the youth-hostel would be operated by the School of Hotel and Tourism Management (酒店系) of the Hong Kong Polytechnic University.
 - (d) An organic hobby farm is proposed at the south-east is proposed. It will be sub-divided into 80 nos. of farming plots, each of about 929 m² (1,000 ft²) in land area. A total of about 80 nos. of farm houses is proposed (one no. for each farming plot). Each farm house has a covered area of about 37 m² (400 ft²) and self-contained toilet/kitchen. This organic hobby farm is proposed to be zoned "Agriculture" ("AGR").

- 2 -

- (e) An area of about 403 m² near the existing access road and the existing main village cluster is proposed to be zoned "Government, Institution or Community" ("G/IC") for a proposed ancillary car park with 25 nos. of car parking spaces.
- (f) On traffic access and fire safety aspect, a 4.5-m to 6-m wide access road/ EVA within the area is proposed.
- (g) To ensure that the water quality of the Upper Indirect Water Gathering Ground in which the Pak Tam Au area falls would not be adversely affected by the above proposals, a total of two communal STPs using Membrane Bio-Reactor Water Recycling System (MBR) is proposed within the "V" zones. In addition, the proposed 3 Small Houses (Planning Application No. A/DPA/NE-TKP/1), which have already obtained planning approval from the Board on 22.7.2011, would also use the proposed STP, instead of traditional septic tanks. The future management and maintenance of the STPs would be secured by means of Deed of Mutual Covenant (DMC).
- (h) Landscaping planting will be provided throughout the subject site to provide visual relief and enhance the environmental quality of the area.

Planning Assessments

3. The submission is a comprehensive development proposal for almost the entire the Pak Tam Au area (about 9 ha or 60%) comprising a total of 76 nos. of Small Houses, open space with an eating place, a youth hostel, an organic hobby farm, and an ancillary car park, etc. with supporting infrastructural facilities including an access road/ EVA and two communal STPs, and landscape planting. While the proposals occupy an extensive area located in close proximity and/ or adjoining the surrounding Country Park, its consequential impacts upon the surrounding areas should be examined. Except for the tree survey, the proposals are not substantiated with any background studies or assessments on other aspects, such as landuse planning, conservation value, the environmental and infrastructural constraints and landscape character, etc. of the Pak Tam Au area. Various departments have raised the following concerns:

Ecological Conservation

- 4. Director of Agriculture, Fisheries and Conservation (DAFC) has the following comments:
 - (a) He notes the villagers' intention to conserve the natural environment in the captioned proposals and the development proposed, except the youth centre, is not in major conflict with his suggested zonings, which have been incorporated into the current draft OZP. Regarding the zoning proposals, conservation zonings would be more appropriate for woodland along the boundary of the area. Development encroaching into woodland should not be encouraged.
 - (b) Although the submitted proposal covers only the Pak Tam Au enclave, the consequential impact of the proposed development on Sai Kung Country Parks shall also be considered. The large number of proposed small houses would inevitably increase the traffic flow inside country parks during and after construction. As the intention of vehicular control beyond Pak Tam Chung is to

- 3 -

maintain the tranquillity of country parks and keep our country parks as free from motor vehicles as possible, the impact of increased traffic flow on country parks shall be evaluated and relevant information should be submitted for the consideration of the Country and Marine Parks Authority in due course.

Water Quality

- 5. Chief Engineer/Development (2), Water Supplies Department (CE/D(2), WSD) has the following comments:
 - (a) The whole of the Pak Tam Au area is within the upper indirect water gathering grounds (WGG). For proposed development, he has grave concern on the pollution effect on WGGs as there is no existing or planned public sewers serving these areas. Normally, WSD will not accept the proposed development if it considers that there will be material increase in pollution effect arising from the proposed development.
 - (b) To prevent contamination of our potable water supply, the project proponent has to demonstrate that there are effective means to ensure there is no material increase in the pollution effect as a result of the implementation of the proposed project and that there are effective engineering solutions and mitigation measures in place in preventing and containing the pollution effect and the proposal will not cause irreversible damage, unacceptable risks or negative impacts on water environment and water quality. As such, the project proponent has to demonstrate to the satisfaction of EPD and WSD that the discharge from the sewerage facilities (during normal operation or maintenance periods) meet the requirements of Water Pollution Control Ordinance (WPCO) and/ or other government regulations under all circumstances. The proponent might have to obtain a licence/permission from EPD for the operation of the sewerage facilities for the compliance of the WPCO. EPD should be consulted in these aspects.
 - (c) The Consultants shall include a water demand assessment in the proposal for the consideration of the Director of Water Supplies or of the Town Planning Board.

<u>Sewerage</u>

- 6. Director of Environmental Protection (DEP) has the following comments:
 - (a) Pak Tam Au is an unsewered area with no planned sewer. The entire area falls within the Water Gathering Ground. WSD's expert advice and consent shall be sought in advance before the consideration of the proposal. The proposal for the construction of a Youth House Centre with 122 rooms and 80 farm houses in the proposed "REC" zone and "AGR" zones respectively would greatly increase the potential water quality impact on Water Gathering Ground.
 - (b) In addition, contaminated surface runoff would also be generated from the proposed "AGR" zone and affect the water quality. WSD again shall be consulted.
 - (c) In view of the above, the area of the "V" zone should be kept to a minimum in order to minimize the potential water quality impact caused by village type development.

(d) He also has reservation on the treatment processes and design calculations of the proposed wastewater treatment system in Attachment 2 of the submission.

Visual and Landscape

7. Chief Town Planner/Urban Design and Landscape, Planning Department (CTP/UD&L, PlanD) has the following comments:

Visual

(a) While there are no details including visual materials that illustrate the structures of the proposed small-scale water treatment works and youth hostel development, it is premature to determine if the proposals would result in any visual impact. As such, he has no particular comment from urban design and visual perspectives on the zoning proposal.

Landscape

- (b) According to the "Landscape Value Mapping of Hong Kong" and the DPA Plan A/DPA/NE-TKP/2, the area of Pak Tam Au has a high landscape value of tranquil rural character which complements the overall natural quality and the landscape beauty of the surrounding Sai Kung East and Sai Kung West Country Parks. The area, with a section of Maclehose Trail and Pak Tam Country Trail running across its northern and southern regions, is a popular spot for hikers.
- (c) The proposed development covers a large area of the existing woodland vegetation, particularly on the northeast to south of the Pak Tam Au valley. According to the site photo dated 25.4.2013 and the aerial photo dated 1.1.2013, the existing densely woodland vegetation around the existing village houses and grassland land serves as a good quality green and scenic buffer for the Sai Kung East and West Country Park. It is considered a significant landscape resources and landscape character of the area of Pak Tam Au valley, which should be conserved.
- (d) The proposed development scheme as shown on the master layout development plan and the proposed zoning plan (drg. no.: LSC/SK/PTA/PH11) is too extensive and would cause adverse impact on the existing landscape resources and landscape character. Therefore, the proposed development is not supported from the landscape planning perspective.

Traffic

- 8. Commissioner for Transport (C for T) has the following comments:
 - (a) The only vehicular access to the site will be through a restricted road connecting Pak Tam Road within the Sai Kung country park. The Consultants' proposal of 76 Small House development implies a higher density development than standard assumption (40 Small Houses per ha). Nevertheless, as the possible traffic impact could be tolerated, he has no in-principle objection to the proposal.
 - (b) For the proposed EVA indicated on Attachment 8 of the proposal, his department will not take up the traffic management responsibility of the proposed EVA. The

management and maintenance responsibilities of the proposed EVA should be clarified with the relevant lands and maintenance authorities accordingly.

Drainage

- 9. Chief Engineer/Mainland North, Drainage Services Department (CE/MN, DSD) has the following comments:
 - (a) There are several streams discharging into the proposed development area, and there are existing streams, ponds and drainage channels within the proposed development area. Some of these streams/channels are quite large and collect a lot of runoff (like the drainage channel just south of the proposed VDA in the Proposed Zoning Plan at **Figure C**). The applicant is required to clarify whether his development will affect these drainage features, to submit a Drainage Impact Assessment (DIA) for the proposed development, and to submit proposals to mitigate the drainage impacts and drain the development area to the satisfaction of his office.
 - (b) In the Proposed Master Layout Development Plan at **Figure B**, the proposed EVA and the trees to be planted on both sides of the EVA appear to intrude into an existing stream course. This will obstruct the flow in the stream which is not acceptable. The applicant is required to clarify whether this will occur or not, and to amend his proposal if necessary.

Land Administration

- 10. District Lands Officer/Tai Po, Lands Department (DLO/TP, LandsD) has the following comments:
 - (a) For the EVA issue, this Office will conduct the assessment (EVA analysis) case by case to see if the small house application site fulfills FSD's requirement. Any condition as proposed by FSD will be incorporated into the offer letter/land grant document on individual merit.
 - (b) The proposed Sewage Treatment Plant is located on Government Land, which is not the standard requirements under the Small House Policy. The applicants are required to seek separate approval for the erection and operation of the proposed sewage treatment plant from Lands Department.

Geotechnical

11. Head (Geotechnical Engineering Office), Civil Engineering and Development Department (H(GEO), CEDD) comments that the northeastern corner of the proposed "V" zone extension is overlooked by steep natural hillsides and may be affected by potential natural terrain landslide hazards. For future development in this area, the developer(s) may be required to carry out natural terrain hazard study and provide suitable hazard mitigation measures, if found necessary, as part of the development.

Hotel Licensing

12. In the absence of detailed information, Chief Officer/Licensing Authority, Home Affairs Department (CO/LA, HAD) has the following comments under the Hotel and

Guesthouse Accommodation Ordinance (HAGAO):

- (a) The applicant should submit a copy of the occupation permit for the proposed youth house centre when making an application under the HAGAO).
- (b) The proposed license area should be physically connected.
- (c) The sitting of the proposal is considered acceptable from fire safety licensing point of view. The applicant is advised to observe the FSI requirements for Institutional Building of the Codes of Practice for Minimum Fire Services Installations and Equipment.
- (d) The licensing requirements will be formulated after inspections by his Building Safety Unit and Fire Safety Team upon receipt of an application under the HAGAO.

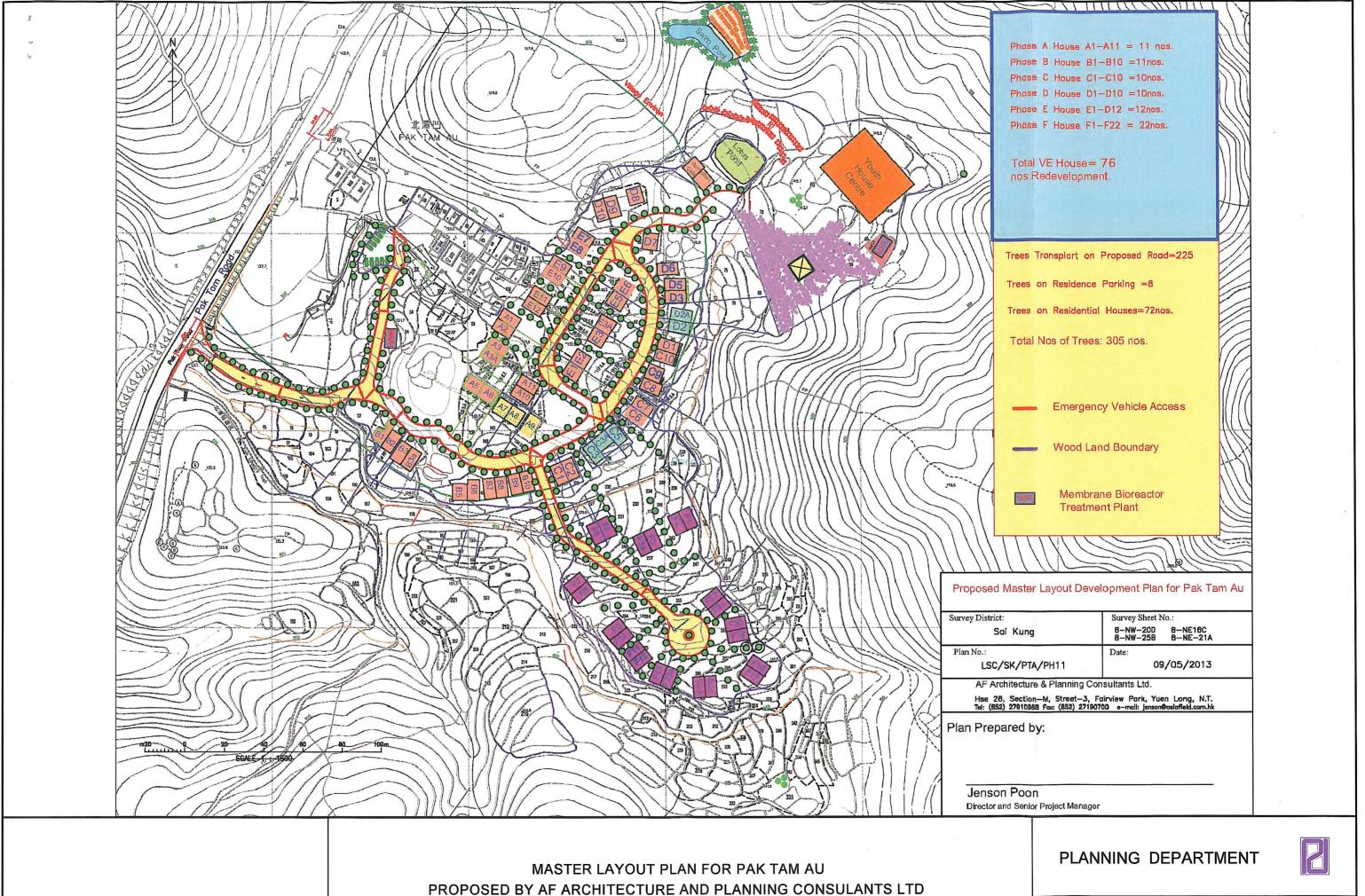
Attachments

Figure B Master layout plan submitted by AF Architecture & Planning

Consultants Ltd

Figure C Zoning plan submitted by AF Architecture & Planning

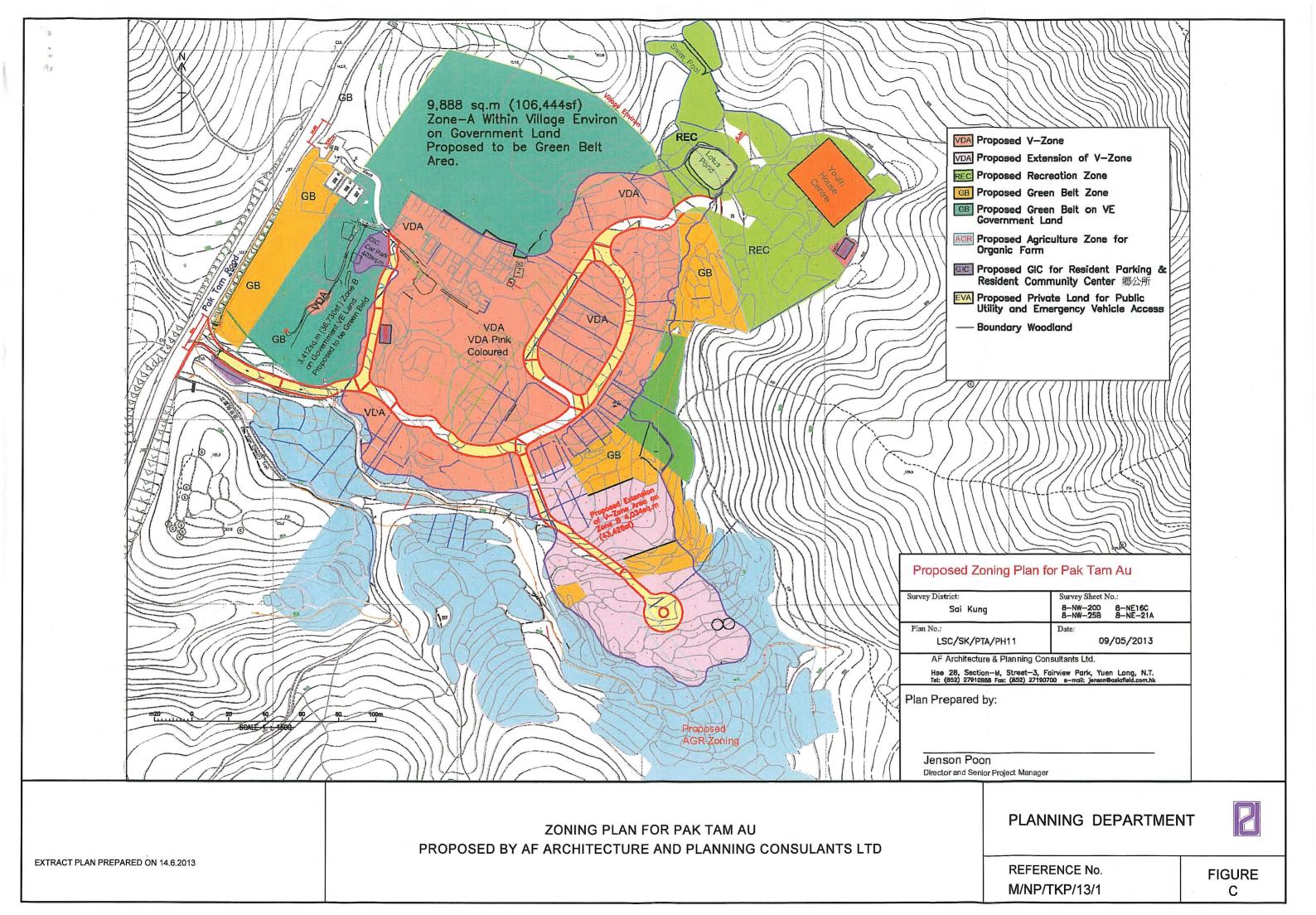
Consultants Ltd



EXTRACT PLAN PREPARED ON 14.6.2013

REFERENCE No. M/NP/TKP/13/1

FIGURE В



新界大埔 人和里2號 西貢北約鄉事委員會

轉交 香港渣華道333號 北角政府合署17樓 規劃署署長

敬啓者:

有關:土瓜坪及北潭凹分區計劃大綱草圖編號 S/NE-TKP/B

自從《土瓜坪及北潭凹發展審批地區草圖編號 DPA/NE-TKP/1》於二零一一年一月七日刊憲後,經過多番與規劃署各職員會面及交流,規劃署擬備出《土瓜坪及北潭凹分區計劃大綱草圖編號 S/NE-TKP/B》。雖則該草圖未能完全達至本村的要求,但本人仍然非常感謝他們的努力。

現對《土瓜坪及北潭凹分區計劃大綱草圖編號 S/NE-TKP/B》的徵詢文件提出意見,並附上建議的分區計劃大綱圖,圖則編號 S/ NE-TKP/B (Revision A),以供規劃署擬備分區計劃大綱圖時,用作詳細考慮。

謝謝!

鄭剛耀

西貢北約土瓜坪村原居民代表

二零一三年十一月十一日

副本抄送:

沙田、大埔及北區規劃處(經辦人:蘇震國先生、吳育民先生及李寶均先生)

本人及村民因應《土瓜坪及北潭凹分區計劃大綱草圖編號 S/NE-TKP/B》就土瓜坪村範圍內的規劃有下列意見:-

(1) (甲) 整體規劃意向 - 第 4.1 段

本人不覺得土瓜坪村是有高自然景觀價值的地方,土瓜坪村如同其它在新界的鄉村,鄉郊環境一般,是我們土生土長的地方,樹木是常見的種類。 土瓜坪村是已有超過百年歷史的認可鄉村,本村祖先勞碌多年開發這遍土地,從來沒有得到政府的關懷。政府在 1972 年建設萬宜水塘時取走本村的水源。更甚在 1979 年引進了郊野公園條例,完全扼殺本村的發展。新界其他鄉村均有道路、電視、通訊網絡等公共設施,唯獨是本村什麼都沒有。本村附近的西貢東郊野公園環境一般,不應要與附近西貢東郊野公園的整體自然環境相配合而限制本村的短期及長期可持續發展的願望,本村一向願意在與政府各部們在互相溝通及互諒互讓下促進發展。

(乙) 「鄉村式發展」-第5.1段

土瓜坪村村民眾多,他們有部份現居於香港,有部份散居其它地方,他們及其後代均希望在土瓜坪村居住。唯規劃作「鄉村式發展」的土地僅有1.94 公頃(約),明顯不足。經本人及村民實地考察後,發覺有部份應納入「鄉村式發展」的土地現規劃為「綠化地帶」、「自然保育區」或「海岸保護區」。經修訂後,「鄉村式發展"的土地可增至4.75 公頃(約),「鄉村式發展」的土地面積雖然增大2.81 公頃或144.34%,在本村村民承諾會繼續以往一貫的保育行動,本村的環境將變得更美好。

(丙) 「綠化地帶」-第5.2段

這「綠化地帶」位於本村的西面,面積約 0.65 公頃,流經本村的一條溪澗在這「綠化地帶」範圍內。以往流經這溪澗的水比現時多,故村民當時喜歡到這裹打水,後期水源減小及農業式微,變成荒廢農地,樹木不多,請參照 P1 及 P2 的照片,故這「綠化地帶」的土地應該改為「鄉村式發展」。

(丁) 「自然保育區」-第5.3段

本人反對把本村大範圍規劃為「自然保育區」。漁農自然護理署在沒有諮詢及詳細交代什麼是保育?無論當局是否有做四季環評,村內大部份土地貿然被「自然保育區」包圍,本村村民全不知情,那是否合理?正如上文所述,本村的鄉郊環境一般,故本人對此「自然保育區」的土地用途地帶甚有保留,尤以本村南面及東面土地,雖然有些地方有樹,但都是些什

樹,生態價值不高,請参照 P7 至 P12 的照片,而這些土地很多都是私人土地,故應改成"鄉村式發展",令村民可興建房屋及居住在這地方。這土地用途地帶另一原因是分隔開易受破壞的天然環境如郊野公園以免發展項目對這些天然環境造成不良影響,本村村民都會盡力保育本村的植物。

另外,文中指出,此「自然保育區」地帶涵蓋相對未受干擾的天然林地,包括村後的風水林及毗鄰的林區,這些林地與附近西貢東郊野公園的天然生境的生境的生態緊密相連。但本人覺得有關地方的樹木數量一般,並不算茂密草木,本村村民一向都保育本村範圍及週邊的植物,本人不同意本村的植物與郊野公園的自然生境的生態緊密相連這說法。文中還指出,有一種香港大沙葉的植物及曾發現土沉香,本人並無察覺有此類植物在本村範圍內。整體而言,這土地用途地帶是不需要的。

(戊) 「海岸保護區」-第5.4段

本村瀕臨高塘口,唯海灣呈三角形,景觀頗狹窄,但優點是本村近海的土地不易被海浪侵蝕,位處「海岸保護區」西面範圍包括部份私人土地,這些私人土地地上沒有甚麼樹木,請参照 P3 至 P6 的照片,本人覺得這些私人土地與南面的私人土地連成一片,應納入「鄉村式發展」的範圍內。另外,考慮到保育、保護和保留天然海岸線,以及易受影響的天然海岸環境,包括具吸引力的地質特色、地理形貌、景觀及風景後,本村中部近碼頭的地方可加大「海岸保護區」的面積。

就上述的意見,整理成本村認為可接受的《土瓜坪及北潭凹分區計劃大綱草圖編號 S/NE-TKP/B (Revision A)》,請參看 $Plan\ A$ 、 $Plan\ B$ 及以下的分析摘要:-

	大約面積及百分率			
用途	OZP No. S/NE- TKB/B	OZP No. S/NE- TKB/B (Revision A)	相差大約面積及百分率	
	公頃	公頃	公頃	%百分率
「鄉村式發展」	1.940	4.745	+2.805	+144.34
「綠化地帶」	0.654	0	-0.654	-100.00
「自然保育區」	6.096	3.893	-2.203	-36.14
「海岸保護區」	1.080	1.132	+0.052	+4.81
土瓜坪村規劃範圍總 面積	9.77	9.77	N/A	0

並就《土瓜坪及北潭凹分區計劃大綱草圖編號 S/NE-TKP/B (Revision A)》土瓜坪村範圍內的規劃附上土地用途及面積一覽表

用途	大約面積及百分率		
用 还	公頃	%百分率	
「鄉村式發展」	4.745	48.57	
「自然保育區」	3.893	39.85	
「海岸保護區」	1.132	11.58	
土瓜坪村規劃範圍總面 積	9.77	100.00	

(Translation)

Director of Planning, 17/F, North Point Government Offices, No. 333, Java Road, Hong Kong

c/o Sai Kung North Rural Committee, No. 2 Yan Wo Lane, Tai Po, N.T.

Dear Sir,

Re: Draft To Kwa Peng and Pak Tam Au Outline Zoning Plan No. S/NE-TKP/B

Since the Draft To Kwa Peng and Pak Tam Au Development Permission Area Plan No. DPA/NE-TKP/1 was gazetted on 7.1.2011, we have been meeting and exchanging views with various staff of the Planning Department on many occasions. Then the Department has drawn up the Draft To Kwa Peng and Pak Tam Au Outline Zoning Plan No. S/NE-TKP/B. Although the Draft OZP still falls short of the demands of our Village, we do appreciate a lot the hard work they have done.

Now we are making comments on the consultation paper on the Draft To Kwa Peng and Pak Tam Au Outline Zoning Plan No. S/NE-TKP/B and submitting a proposed OZP No. S/NE-TKP/B (Revision A) for your deliberation during the course of finalizing the relevant OZP.

(Signed) CHENG Kwok-fai

Representative of Indigenous Inhabitants of To Kwa Peng Village, Sai Kung North

11.11.2013

c.c.:

Shatin, Tai Po & North District Planning Office (Attn: Mr. SO Chun-kwok, Mr. NG Yuk-man and Mr. LEE Po-kwan)

Regarding the Draft To Kwa Peng and Pak Tam Au Outline Zoning Plan No. S/NE-TKP/B, the villagers and I have the following comments relating to the planning within To Kwa Peng Village:-

1 (A) General planning intention – Para. 4.1

I don't think that To Kwa Peng Village is an area of high scenic and landscape value. To Kwa Peng Village is more or less like any other villages in the New Territories which has ordinary rural surrounding. It is the place where we have grown up and the trees grown there are of common species. To Kwa Peng Village is a recognized village of over 100 years. For years, our ancestors have painstakingly opened up this land without getting any Government attention. In 1972 when the Government built the High Island Reservoir, the water source of our Village was taken away. In 1979 the County Park Ordinance was enacted, which has completely ruled out any development of the Village. In other villages in the N.T., public facilities like roads, TV coverage, and communication network are provided. Yet there is nothing in our Village. There is nothing extraordinary about the Sai Kung East Country Park near our Village. Forming an integral part of the natural system of the adjoining Sai Kung East Country Park should not be used as a reason to limit the aspirated short-term and long-term sustainable development of our Village. It has always been our wish to promote development of the Village through mutual consultation and compromise with various Government departments.

(B) Village Type Development – Para. 5.1

The number of villagers in To Kwa Peng Village is quite large. Some of them are now living in Hong Kong, while some others are scattered over other places. They and their descendants all wish to live in To Kwa Peng Village. However, the area designated for Village-type development is just about 1.94 hectares. Apparently, that is not enough! After site inspection by me and the villagers, we found that some areas that should be included in the V-zone are planned as "Green Belt", "Conservation Area" or "Coastal Protection Area". Upon revision, the size of the V-zone area can be increased to some 4.75 hectares. Although the V-zone area has increased by 2.81 hectares or 144.34%, our villagers undertake to keep on with the usual conservation actions to further improve the environment.

(C) Green Belt - Para. 5.2

This Green Belt is located west of the Village with an area of 0.65 hectares. The river flowing through our Village is located within this Green Belt. The water volume flowing through this river was higher before, so the villagers used to get water there. Later when river flow dropped and agriculture activities reduced, the agricultural land

was deserted with little vegetation. Please refer to the photos at P1 and P2. Therefore, the land at the Green Belt should be designated as V-zone.

(D) Conservation Area – Para. 5.3

I object to the zoning of a vast area of our Village as Conservation Area. Agriculture, Fisheries and Conservation Department has not conducted any consultation or explained in detail what they mean by conservation. Whether year round Environmental Impact Assessment has been conducted, it is unreasonable that the majority of land in our Village is suddenly surrounded by Conservation Area without our knowledge. As mentioned above, the landscape of our Village is nothing special. Therefore, I have strong reservation for this land use of Conservation Area. This is especially true for the land south and east of our Village. Although trees are grown in some areas, they are just ordinary trees of little ecological value. Please refer to the photos at P.7 to P.12. Moreover, the majority of land is private land. So the area should be rezoned as V-zone to allow villagers to build their houses and live there. Another reason for this land use is to separate the natural environment vulnerable to damage (such as Country Park) to avoid any development project posing adverse impact to the natural environment. Our Villagers would dedicate themselves to conserve the vegetation in our Village.

In the paper, it is said that this Conservation Area is mainly covered by relatively undisturbed natural woodlands, including the *fung shui* woodland behind the Village and the adjacent wooded areas, which are ecologically-linked to the natural habitats of the Sai Kung East Country Park. However, I notice that the number of trees at the relevant location is not that much. The woodlands are not dense. Our villagers have all along conserving the Village and the surrounding vegetation. I do not agree with the point that vegetation of our Village is ecologically-linked to the natural habitats of the Sai Kung East Country Park. The paper has also mentioned that flora species of the protected *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) has been recorded. However, I haven't noticed the presence of these plants within the area of our Village. In a nutshell, this land use is unnecessary.

(E) Coastal Protection Area - Para. 5.4

Our Village is fronting Ko Tong Hau. Yet the bay is of triangular shape so the view is not open. However, the advantage of this is that the land fronting the sea is less vulnerable to wave attack. The area west of the Coastal Protection Area covers some private lands. There are not many trees on these private lands. Please refer to the photos at P.3 to P.6. I reckon that these lands and the private lands to the south do make up a continuous stretch, so they should be incorporated into the V-zone. Besides, having taken into account the factors of conservation, protection and retaining the

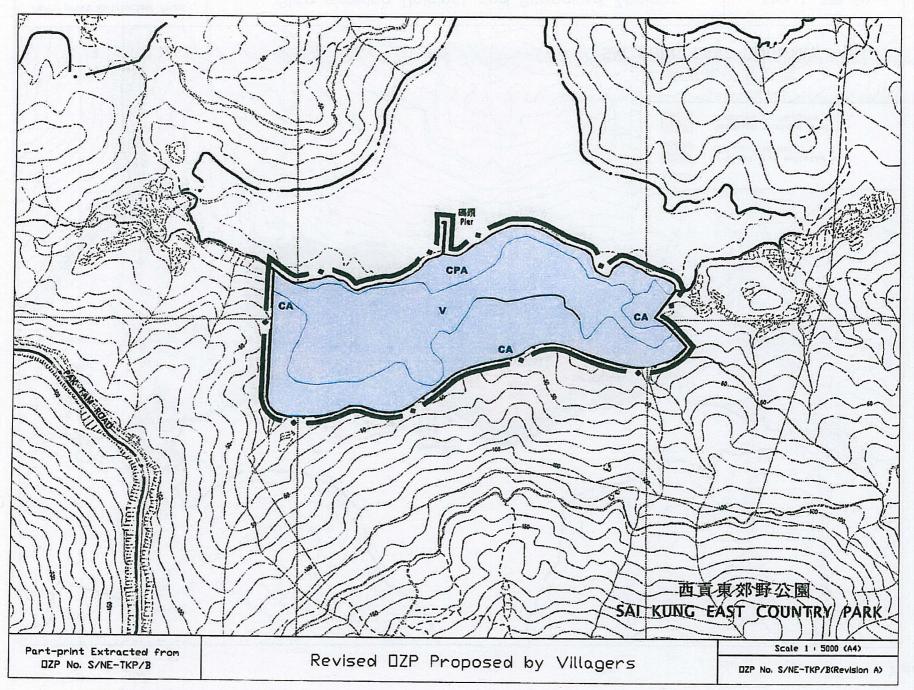
natural coastlines and the sensitive coastal natural environment, including attractive geological features, physical landform or area of high landscape or scenic value, the area in the center of our Village near the pier can be added to enlarge the area of Coastal Protection Area.

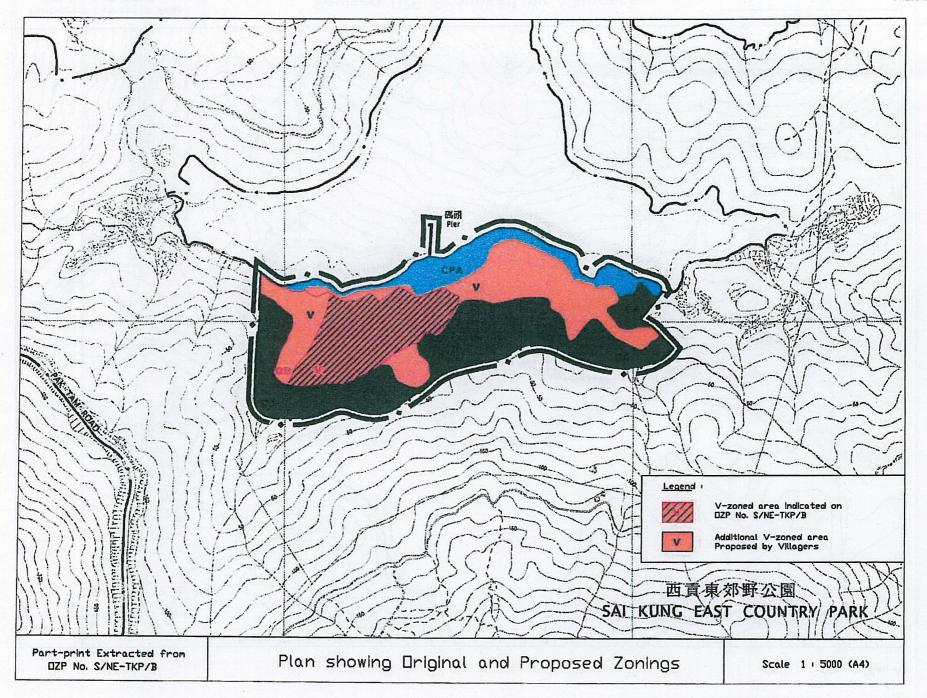
Based on the above comments, we have consolidated the Draft To Kwa Peng and Pak Tam Au Outline Zoning Plan No. S/NE-TKP/B (Revision A) which is acceptable to our Village. Please refer to Plan A, Plan B and the following summarized table for details:-

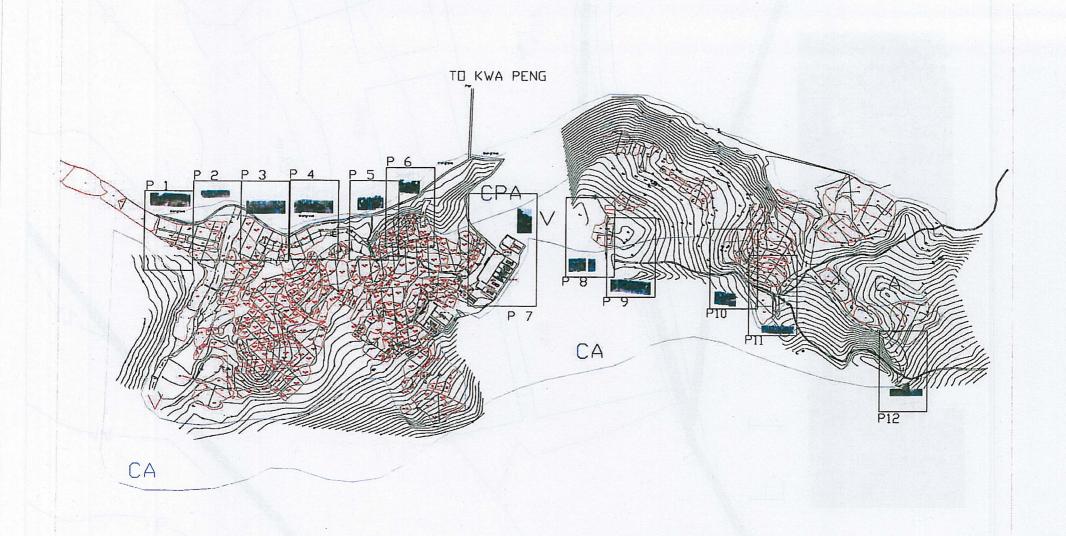
	Approximate area and percentage					
Land Use Zonings	OZP No. S/NE-TKP/B	OZP No. S/NE-TKP/B (Revision A)	Approximate differences in area and percentage			
	Hectares	Hectares	Hectares	% Percentage		
Village Type Development	1.940	4.745	+ 2.805	+ 144.34		
Green Belt	0.654	0	- 0.654	-100.00		
Conservation Area	6.096	3.893	- 2.203	-36.14		
Coastal Protection Area	1.080	1.132	+ 0.052	+ 4.81		
Total planning area in To Kwa Peng Village	9.77	9.77	N/A	0		

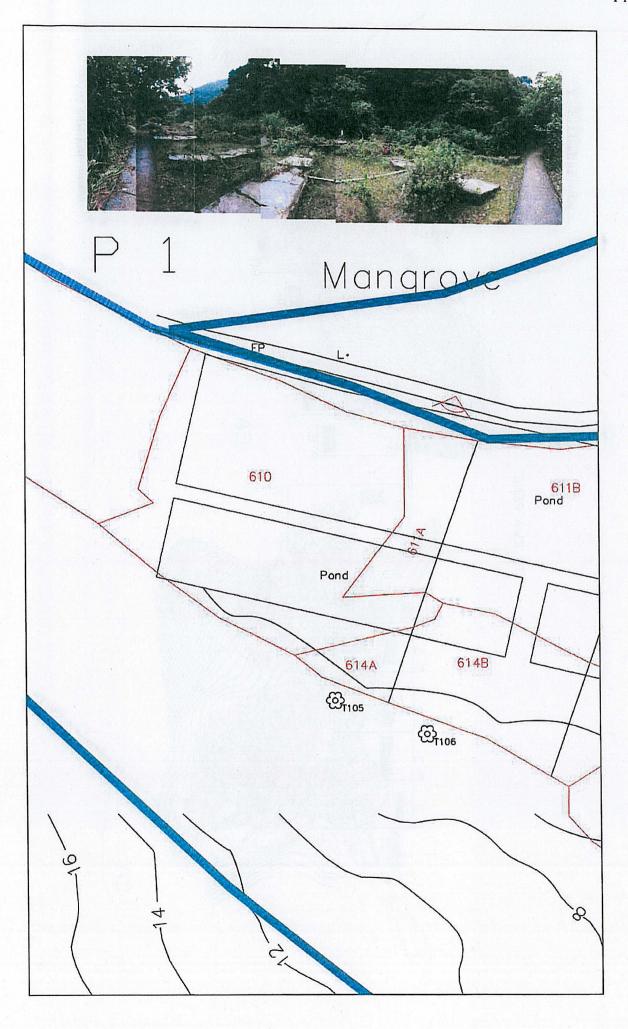
Enclosed is the Draft To Kwa Peng and Pak Tam Au Outline Zoning Plan No. S/NE-TKP/B (Revision A) listing the land use and assigned areas related to the planning of To Kwa Peng Village

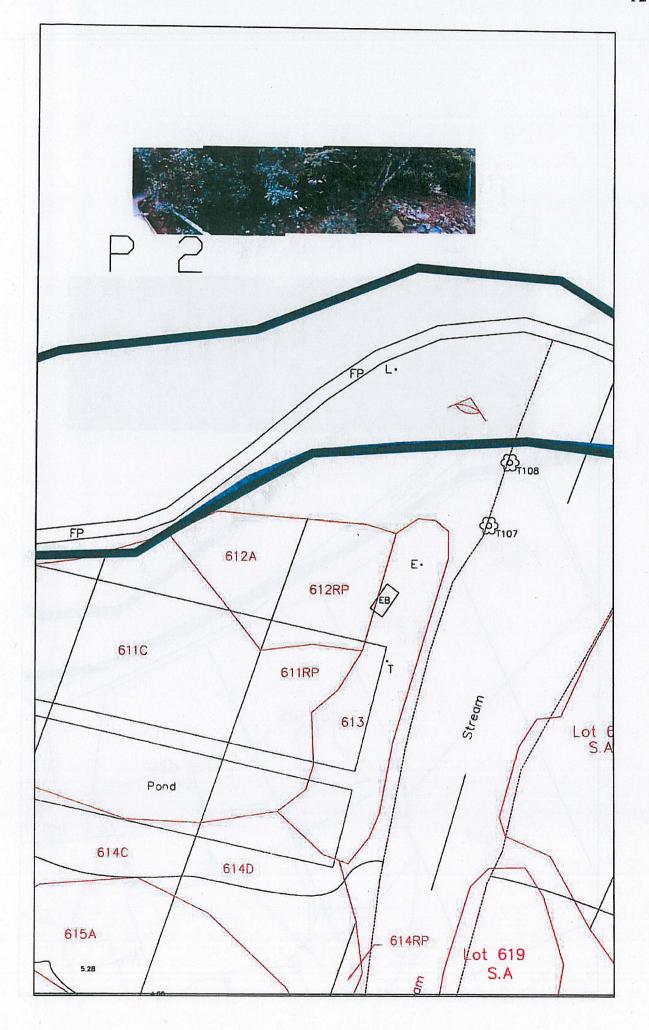
, (5822).	Approximate area and percentage			
Land Use Zonings	Hectares	% Percentage		
Village Type Development	4.745	48.57		
Green Belt	3.893	39.85		
Coastal Protection Area	1.132	11.58		
Total planning area in To Kwa Peng Village	9.77	100		

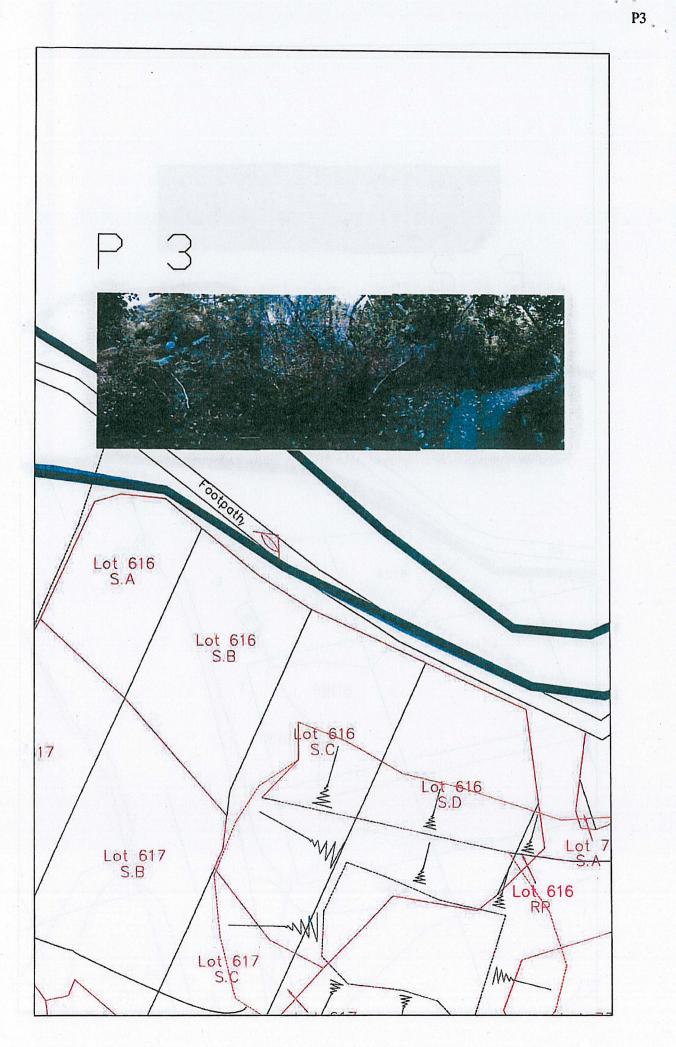


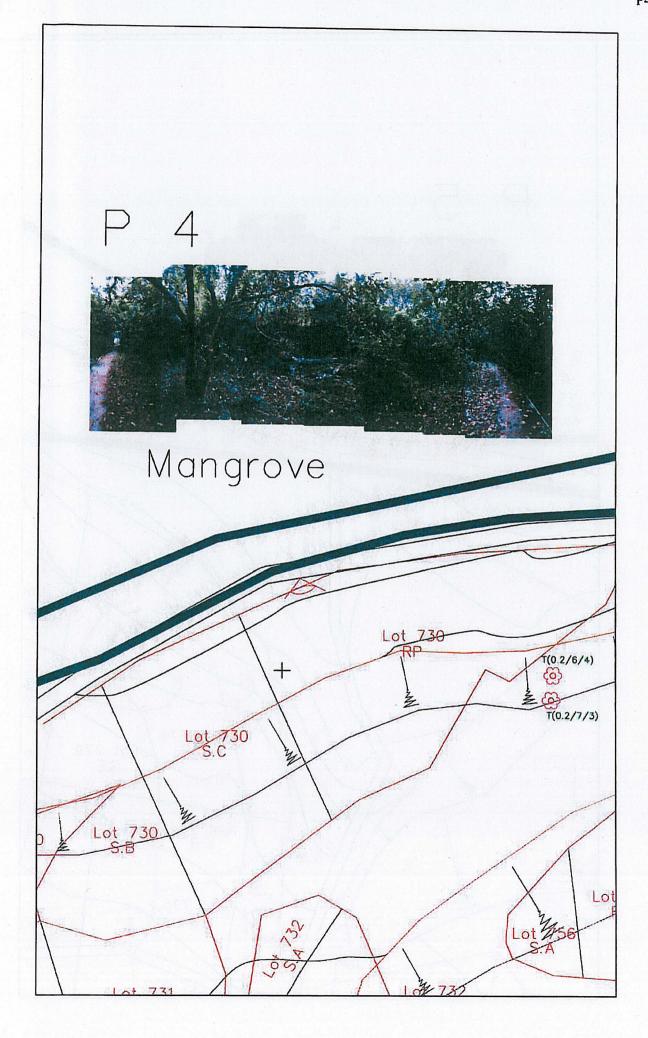


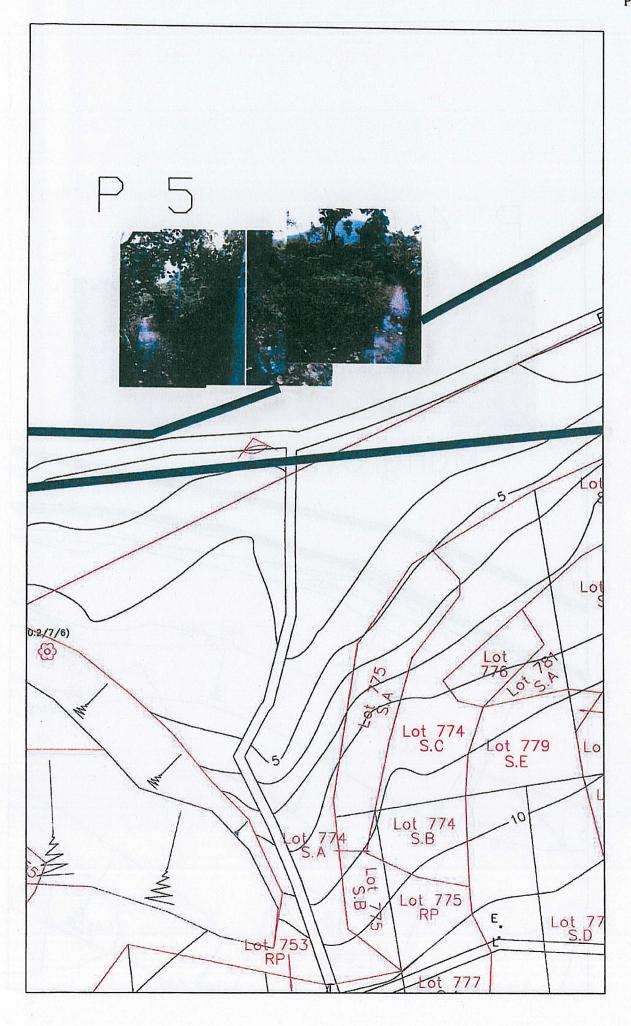






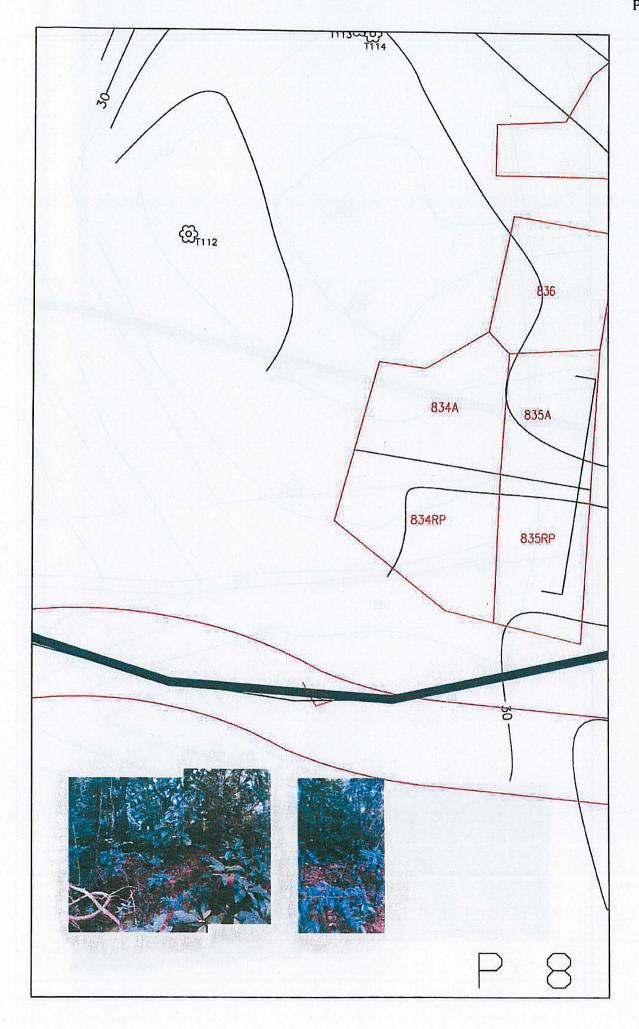


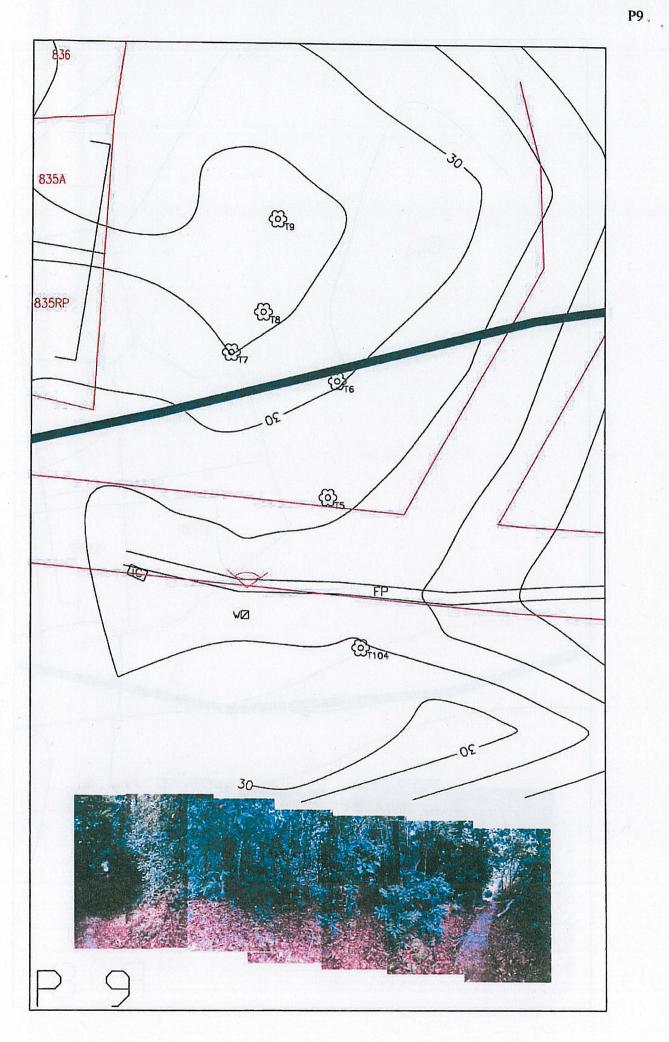


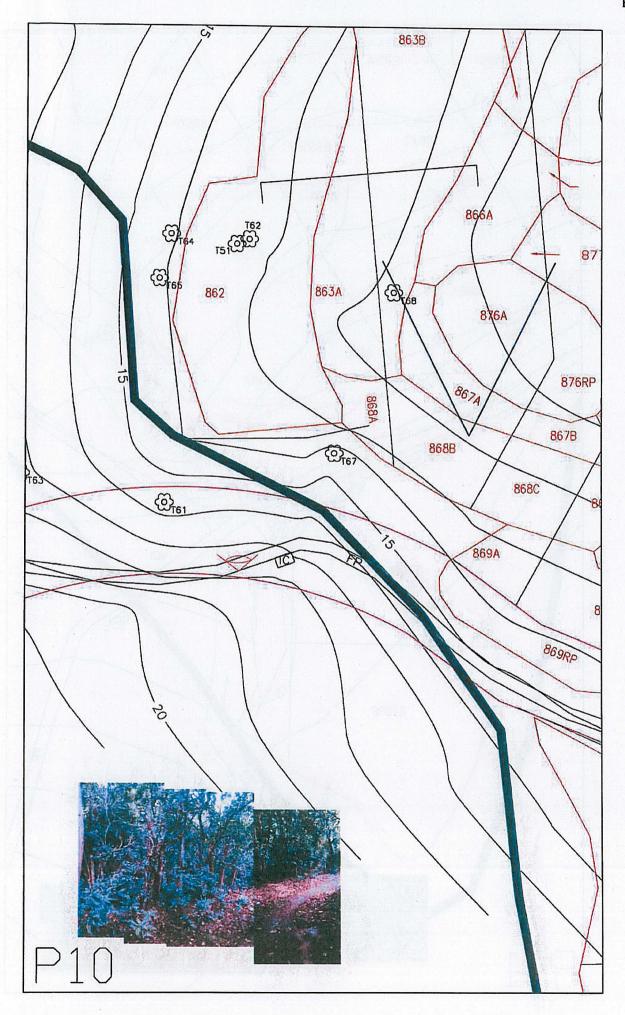


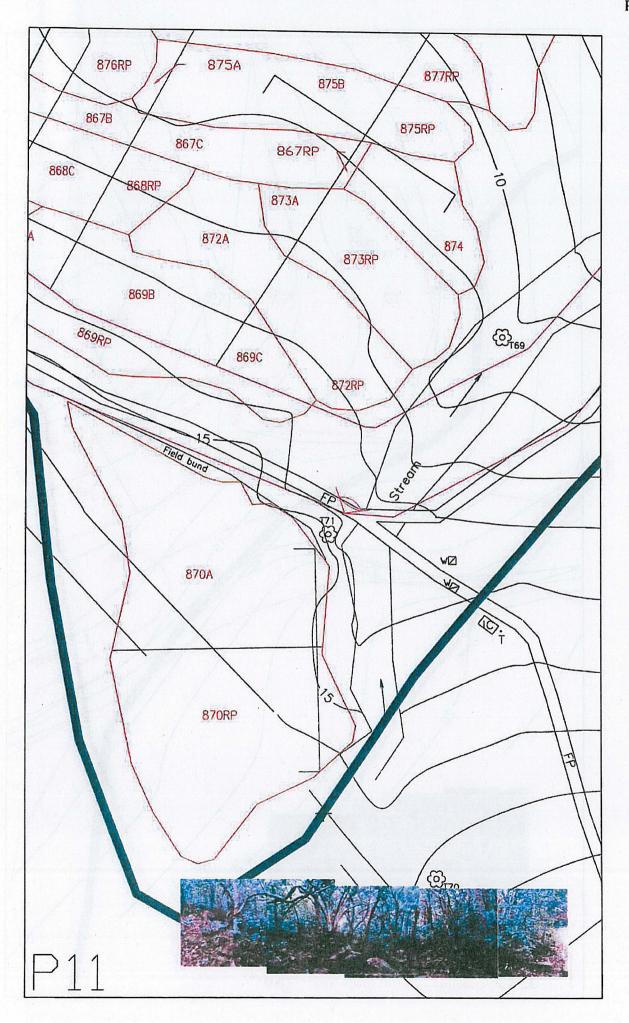


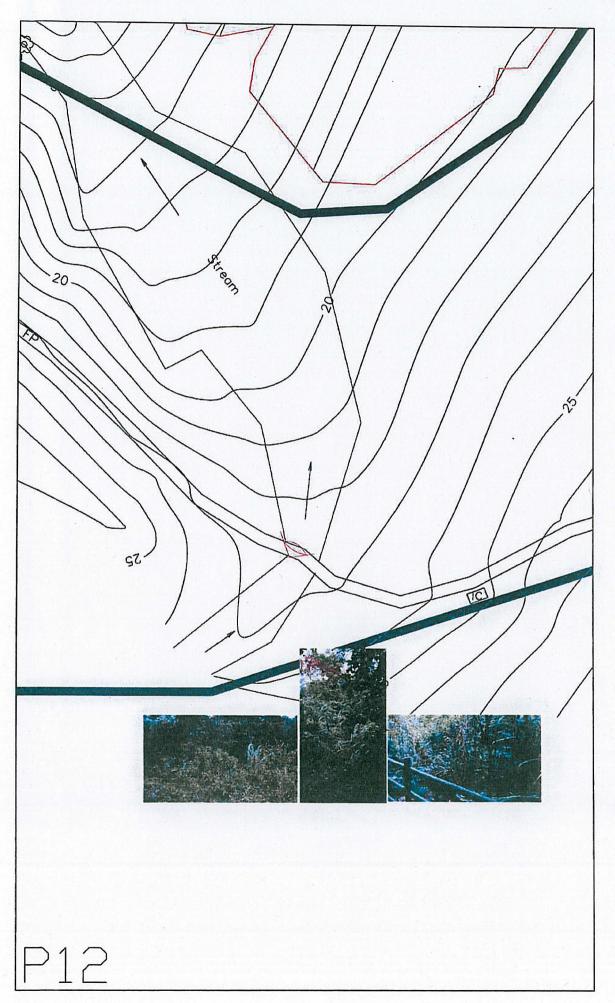












西貢, 北潭涌, 北潭凹村, 發展審批大剛圖修改建議書

蕊本村北潭凹收到規劃署於 4-10-2013 就 M/NP/TKP/12/1 之修訂作出以下回應:

本村村民經商議後,基本上接納規劃署就北潭凹村所作出的新修訂規劃大剛圖,但唯一需要修改的就是位於圖五的右方,一條舊有的但暫時封閉的水泥車路,希望能將該段路條改為 V-Zone 而不是 CA, 其理由如下:-

- (一)請參考附圖一及二,可見該現有的舊村路是位於北潭路的最頂及最高的位置,該位置不但是北潭凹村的車路入□,更是一個公共巴士車站,倘村民或其他車輛如,學童校巴,政府垃圾收集車輛,郵政局等一切車輛當駛入北潭凹村時,由於該段路為最高點,故根本看不到對頭有出北潭涌的車輛,倘有任何時段或天雨等出現,該段來往的北潭涌路與入村的交匯點就變成一個極之危險的高危意外點.
- (二)該段入村的車路,不但狹窄,且多灣又傾斜,(請參考附圖三及四,倘台風或天雨等情況出現,不任何車輛,任何村民出入,均會因路面傾斜及灣多, 遇到濕滑會構成高危的風險.
- (三)基於長遠發展的方向,本村建議於附圖五所指的一段修訂為 V,以方便將 來能提供一條更平坦,更安全及更寬闊的新路.
- (四)請參考附圖八及九,可見該段路的出入□是位於較平坦及較安全的大路□. 該段路,現時已有舊的水尼鋪設,而整段路均沒有樹木生長,唯有左右兩邊的樹木,在建議為的一段的左右需有樹木,但建議的路段是絕不會影響左右兩邊的樹木,更不會因任何理由而需要樹木搬遷.
- (五)由於該段修改只用作村內車路及村內垃圾收集站外,絕不會作其他任何用 涂.
- (六)該段路對將來不論消防車輛,救護車輛或其他大型政府車輛的進出均可提供一條符合現行"緊急車輛通路 Emergency Vehicle Access 的要求,

鑑於上述要求,本村希望貴署能體諒本村的將來所需,予以條訂的一段很小部份,如蒙答充,本村上下無盡感激.

此致 規劃署



潘麒元 北潭凹發展顧問

(Translation)

To: Planning Department

Dear Sir,

Re: Proposed revision to the Development Permission Area Plan relating to Pak Tam Chung and Pak Tam Au Village in Sai Kung

On 4th October 2013, the Pak Tam Au Village has received from the Planning Department amendments to M/NP/TKP/12/1. We have the following comments to make.

After discussion among our villagers, we basically accept the amended Outline Zoning Plan (OZP) for Pak Tam Au Village prepared by the Planning Department. The only amendment that needs to be made is about an old but temporarily closed concrete covered vehicular access as shown on the right side of photo 5. We hope that road section can be zoned as V-zone instead of CA. Our grounds are as follows:

- (1) Please refer to Photos 1 and 2. You can tell that the existing village access is located at the highest and topmost point of Pak Tam Road. That point is not only the vehicular entrance to Pak Tam Au, it is also a stop for public buses. When villagers or other vehicles, such as school bus, Government refuse collection vehicle or post office car, enter into Pak Tam Au, they are not able to notice any oncoming vehicles leaving Pak Tam Au as the level of that road section is higher than the rest. Should there be any particular circumstances or heavy rain, the junction at Pak Tam Au Road and the village access entrance would become a black spot of traffic accident.
- (2) That vehicular access to the Village is not just narrow, it is also steep and full of bends. (Please refer to Photos 3 and 4.) In case of typhoons or rainstorms, vehicles as well as villagers would be moving on that steep and bending slippery road surface, which is extremely dangerous.
- (3) For the sake of long term development, our Village proposes to have the road section indicated on Photo 5 zoned as V-zone to facilitate the provision of a flatter, safer and wider new road in the future.
- (4) Please refer to Photos 8 and 9. You can see that the entrance of that road section at the junction of the main road is much flatter and safer. That road section was covered with concrete before. No tree is grown along it way. Trees are found only on both sides. Although there are trees grown on both sides of the proposed section, they would not be affected even there is such a proposal. There is no reason that they need to be removed.
- (5) The proposed section will only be used as vehicular access to the Village and

refuse collection, it would not be used for any other purpose.

(6) That road section could also serve as an access to comply with the existing requirement of "Emergency Vehicle Access" for use by fire appliances, ambulances and other larger Government vehicles.

Based on the above, we hope that your Department would recognize our future need. We are requesting amendment to a very small section. Your approval would be much appreciated.

(Signed) POON Kei-yuen

Development Consultant of Pak Tam Au Village

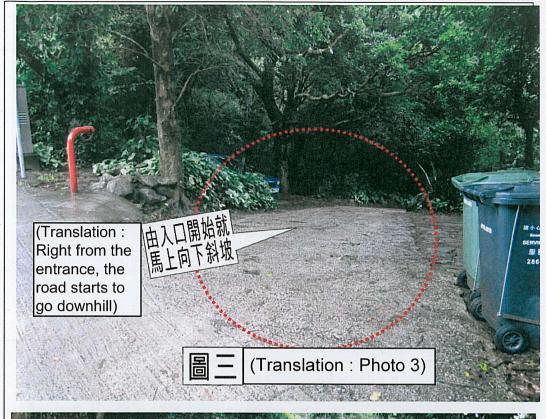




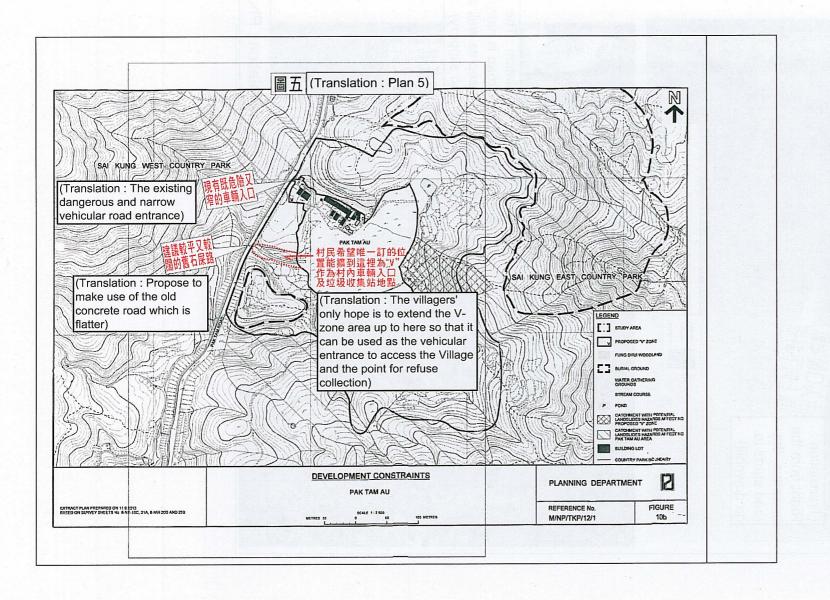
(Translation : Photo 2)



(Translation: The current bus stop at Pak Tam Au and the only entrance for vehicles)

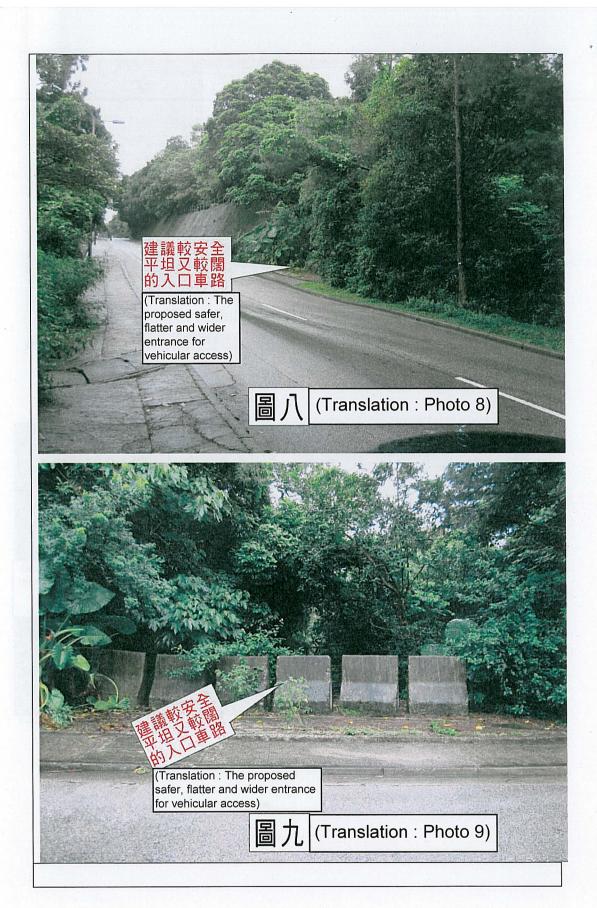




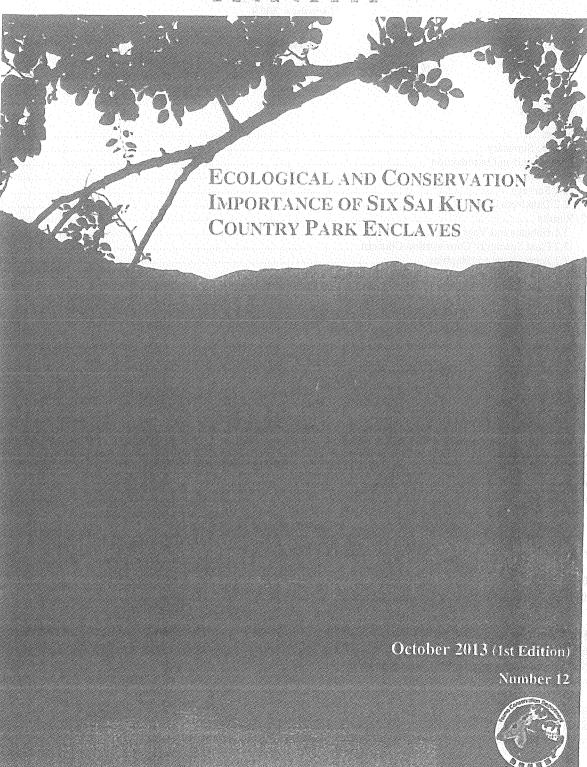












Ecological and Conservation Importance of Six Sai Kung Country Park Enclaves

(1st Edition)

October 2013

Editors

Gary ADES, Tony NIP & Ming Chuan WOO

Contents

Contents	******************************		
Executive Summary			
1. Background and Introduction		**********************	
2. Methods			
2.1 Surveys			**********
2.2 Data from Other Sources			*********
3. Results	*************		
3.1 Habitats and Vegetation			
3.2 Plant Species of Conservation Concern	····		1
3.3 Amphibians and Reptiles	*************		1
3.4 Fish	,,,	,	1
3.5 Crustaceans			1
3.6 Birds			1
3.7 Mammals			
4. Habitats of High Conservation Importance	******************************		2
4.1 Watercourses and Riparian Zones		*********************	2
4.2 Woodlands	*************************		2
4.3 Mangroves and Backshore Vegetation		**********************	2
4.4 Marshes and Seasonally Wet Grasslands at PSO and PTA			2
4.5 Ponds at PTA			
4.6 Riparian Grasslands at CK			
4.7 Pond and Associated Marsh at KT			
4.8 Existing Agricultural Land at PSO		********************	22
5. Recommendation		***********************	2:
References		**********************	24
Figures		******************	20
Appendices			
Appendix 1. Flora Species Recorded within Each Enclave			
Appendix 2. Avian Species Recorded or Predicted to Occur in 1	the Enclave Habitats.	•••••••••	10

Abbreviations: PSO (Pak Sha O), PTA (Pak Tam Au), CK (Chek Keng), KT (Ko Tong)

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Executive Summary

Following the "Tai Long Sai Wan incident" in 2010 which saw the potential loss of an area of outstanding beauty to a private development and highlighted how vulnerable our local ecology and natural heritage have become, the Hong Kong Government made a promise to step up procedures to protect the Country Park (CP) enclaves not yet covered by statutory plans. In 2011, the Ombudsman also urged relevant departments and bureaux to cover those areas with statutory plans or incorporate them into the CP system.

At the time of writing, the Planning Department has been preparing Development Permission Area plans (DPA) or Outline Zoning Plans (OZP) for many of these areas, in consultation with the Town Planning Board. Meanwhile, the Agriculture, Fisheries and Conservation Department has incorporated several enclaves (including Tai Long Sai Wan) into the CP system (revised CP maps were gazetted in May 2013 for 3 enclaves), based on the advice from the Country and Marine Parks Board. There are still approximately 28 enclaves not yet appropriately protected (at time of writing).

With a view to facilitating future decisions regarding the conservation of the CP enclaves, KFBG and collaborators have carried out site visits and surveys of several enclave areas to obtain up-to-date ecological information, which can be shared with the public and authorities. It is hoped that more informed decisions can be developed based on the additional knowledge provided in this report. The present report covers six enclaves in Sai Kung: Pak Sha O and Pak Sha O Ha Yeung, Nam Shan Tung, Pak Tam Au, Ko Tong, To Kwa Peng and Chek Keng. We hope these findings can assist the relevant Government departments in making appropriate and informed decisions regarding the designated zoning plans for these areas, and support the incorporation of unprotected areas into the CP system.

Most natural and semi-natural habitats within the listed enclaves are of high conservation concern; indeed, from an ecological and conservation viewpoint, they are inseparable from the wider Sai Kung CP ecosystem. We urge that the government takes guidance from the Convention on Biological Diversity (extended to Hong Kong in 2011) in deliberating its planning decisions for the enclaves. Appropriate conservation zonings (under the CP system or the town planning system) and statutory control of these areas will help deter haphazard, unsustainable development and help to appropriately safeguard Hong Kong's important natural and built heritage for the wider community and future generations.

1. Background and Introduction

The "Tai Long Sai Wan incident" first came under the spotlight in mid 2010 (http://www.nshk.org.hk/pdf/c_awards/2010/010.pdf); the public reacted with great concern regarding the case and urged the Government to take immediate action to safeguard natural landscapes that are afforded no statutory protection (as in the case of Tai Long Sai Wan). The then Chief Executive announced in his Policy Address (in October 2010) that the Planning Department (PlanD) and the Agriculture, Fisheries and Conservation Department (AFCD) would protect the Country Park (CP) Enclaves not yet covered by statutory plans according to the local situations, either by incorporating them into the CPs or through statutory planning control; in September 2011 the Ombudsman also recommended that (a) DevB (Development Bureau) and EnB (Environment Bureau) should urge their executive departments to, as directed by the Chief Executive, expeditiously prepare statutory plans for those enclaves that are still unprotected or to incorporate them into country parks, in order to ensure that all enclaves are properly protected; and (b) AFCD should consider incorporating private lands that have conservation value into country parks in accordance with the revised CMPB (Country and Marine Parks Board) criteria (http://www.ombudsman.hk/concluded/2011_09_02.pdf).

Also in 2011, the Convention on Biological Diversity (CBD) was extended to Hong Kong, and in the 2013 Policy Address, the Chief Executive Mr. C.Y. Leung reported that the Government would appropriately implement the requirement of this international Convention and a Biodiversity Strategy and Action Plan (BSAP) would be developed; Article 8 of this international Convention lists all necessary actions that are essential for in-situ conservation (http://www.cbd.int/convention/articles/default.shtml?a=cbd-08), and some relevant items are documented below:

- (a) Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity
- (b) Develop, where necessary, guidelines for the selection, establishment and management of protected areas or areas where special measures need to be taken to conserve biological diversity
- (c) Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use
- (d) Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings
- (e) Promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas
- (f) Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, inter alia, through the development and implementation of plans or other management strategies
- (i) Endeavour to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components
- (k) Develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations

The present report was compiled with the above incidents and Government promises in mind. Six CP enclaves in Sai Kung were selected for documentation, partly due to the fact that some information on these sites was already available and also because these sites were considered of ecological importance: Pak Sha O (PSO; including Pak Sha O Ha Yeung (PSOHY)), Nam Shan Tung (NST), Pak Tam Au (PTA), Ko Tong (KT; including Ko Tong Ha Yeung (KTHY) and Tai Tan (TT)), To Kwa Peng (TKP) and Chek Keng (CK) (Figure 1). The aim of this report is to provide up-to-date ecological information for relevant authorities to ensure that the CP enclaves are afforded appropriate protection. The information was gathered by experts from Kadoorie Farm & Botanic Garden (KFBG) and experts from a local ecological consultant with more than ten years' experience in ecological survey and assessment work in Hong Kong, including Sai Kung. The survey was sponsored by KFBG.

2. Methods

2.1 Surveys

Aquatic fauna were surveyed by direct observation and snorkelling during the wet season of 2012. From October to December 2012, botanists and ornithologists from the consultant carried out habitat, vegetation and bird surveys; for each enclave, the study area constitutes the enclave itself and accessible areas within 50m from the boundary. Habitat mapping was conducted by comparing aerial photographs and later through ground-truthing; vegetation surveys were conducted at the same time as the ground-truthing. Bird surveys were carried out on foot, beginning within 40 minutes of sunrise and continuing until around 10.30 am. Two surveys of each enclave were conducted, with the exception of PSO, for which more or less weekly surveys were conducted during the study period (October to December 2012). Results of the survey work were supplemented with data collected from occasional ad hoc surveys undertaken over the past seven years at PSO. Data collated from this longer and more intense period of observation were used to inform assessments of other enclaves in view of their close proximity (maximum 4 km between the two most distant) to each other.

2.2 Data from Other Sources

Personal observations by KFBG staff regarding the herpetofauna recorded at the enclaves were gathered to supplement the findings in this report. These observations were made in recent years (e.g., after 2000). Unpublished and published data from AFCD (e.g., AFCD newsletter *Hong Kong Biodiversity*) and other sources (e.g., Hong Kong Bird Watching Society) and scientific literature were reviewed and useful information related to the enclaves was extracted.

The general status of different habitats was assessed based on site observation, relative biological diversity and the presence or absence of species of conservation interest. Status of species mainly follows Fellowes *et al.* (2002), Hu *et al.* (2003), IUCN Red List, AFCD's database and other documented sources.

Mariarka na silabahtimbar 1927 - mariara selari batan di shiratiki bahi san bebarah debelih kasir salah kesik

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Publication Series No.12

page 4

3. Results

3.1 Habitats and Vegetation

The area of habitat in each studied enclave (including the area 50 m from the boundary) is provided in **Table 1**. A complete plant list is provided in **Appendix 1**.

Table 1. Habitats in each study area (%)

Habitat type	PSO	NST	PTA	KT	TKP	CK	
Channelized watercourse			0.27	un Beker en			
Backshore vegetation				0.36	1.43	3.83	
Developed/ Village area	4.99	0.84	4.82	9.17	1.31	1.94	
Dry agricultural land	0.83			0.14		100	19/19
Fung shui Woodland	4.76	4.97	3.64	2.62	6.96	9,48	
Grassland	0,41	7.65	5.00	a Shekaka W	his vigit sine	1.60	
Shrubby grassland	0.88	, Aphilistry in	7.65	0.99	6.25	Myr. vigo	1
Mangrove	\$ 50.00 \ \			1.21	6.14	3.11	
Marsh	0.92		0.95	0.41	visiviš visini		
Natural watercourse	2.82	1.99	0.85	2.62	0.88	3.42	the bij
Plantation			1.26				cated)
Pond			0.31	0.61		phivive t	
Ruderal area*	0.06	es pastras	Migriditie	0.18	1.04	0.19	n malay
Sea 11. Waster Heily and Switch	i di spirito	KORTANIA APEGA		4.49	14.09	11.00	
Seasonally wet grassland	0.12		0.91	0.36		a tytakowa:	
Secondary woodland	84.21	84.55	72.71	76.84	61.47	74.91	
Waste ground			1.63		0.43	MAN MAN	
Total %	100.00	100.00	100.00	100.00	100.00	100,00	Tota
Fotal area (ha)	48.16	9.23	22.40	97.20	17.11	56.23	250.3

^{*} waste ground with sparce vegetation cover (often invasive plants)

3.1.1 Pak Sha O

Ten habitats were identified within the PSO study area, comprising native secondary woodland, fung shui woodland, marsh, developed/village area, seasonally wet grassland, dry agricultural land, natural watercourse, grassland, shrubby grassland and ruderal area. Figure 2 shows the habitat map of PSO and PSOHY.

Native secondary woodland is the dominant habitat type within this enclave. The lowland woodland seems to have evolved from abandoned agricultural land through natural succession, while the remaining woodland located on the hillside is relatively mature. The woodland is extensively covered by climbers such as Byttneria aspera. The overstorey of this woodland habitat mainly consists of tree species Cratoxylum cochinchinense, Alangium chinense, Viburnum odoratissimum and Mallotus paniculatus of young age. Dominant species underneath the overstorey include common shrubs and trees (such as Psychotria asiatica, Ardisia quinquegona and Daphniphyllum calycinum). A total of 100 floral species were identified. Five floral species of conservation concern were identified, including the herb Houttuynia cordata, fern Cibotium barometz, climber Gnetum luofuense, shrub Pavetta hongkongensis and tree Aquilaria sinensis.

A specimen of *Ludisia discolor* is present in the woodland at PSO. This species is regarded as infrequent but widespread in HK by Barretto *et al.* (2011), who note that most of Hong Kong's subpopulations are now feared extinct. They assign it a Red Data status of EN in Hong Kong.

Two areas of fung shui woodland are present; these are located behind the village areas at PSO and at PSOHY, respectively. PSO fung shui woodland is located in the south of the enclave and PSOHY fung shui woodland is located in the north (see Figure 2). The vegetation compositions of the two woodlands are similar and mainly consist of a closed canopy of common fung shui woodland native tree species such as Aporusa dioica, Schefflera heptaphylla and Cinnamomum parthenoxylon, with a well-developed understorey dominated by Byttneria aspera, Maesa perlarius and Psychotria asiatica. The presence of mature trees with average Diameter at Breast Height (DBH) of 30-60cm and well-developed woody climbers (Byttneria aspera and Gnetum luofuense) indicates that they are old-growth woodlands with limited human disturbance. Both fung shui woodlands support a moderate plant diversity (77 and 66 floral species were identified within PSO and PSOHY, respectively), with four plant species of conservation concern recorded, including the fern Cibotium barometz, climber Gnetum luofuense, shrub Pavetta hongkongensis and tree Aquilaria sinensis.

Four significant areas of natural freshwater marsh are present within the enclave. One of these is at PSOHY, while the remaining three are at PSO. The marshes evolved from abandoned agricultural land through natural succession. They have been utilized and maintained by feral cattle and are mainly dominated by wetland- or marsh-associated plant species including Geissapis cristata, Ischaemum barbatum, Floscopa scandens, Philydrum lanuginosum, Impatiens chinensis and Cyclosorus interruptus. This habitat supports moderate plant diversity (53 floral species) compared with similar habitat elsewhere in Hong Kong. Three species of conservation concern were identified, including the herbs Houttuynia cordata and Geissapis cristata, and one orchid species, Liparis ferruginea. Although the orchid species was only recorded in the marsh of PSOHY, the close proximity (< 500m) to the other three marshes in PSO and the fact that the growth environments of these marshes are similar to that of PSOHY, might suggest the likelihood that the same orchid species occurs at all three marshes. This orchid species is considered to be scarce and restricted in Hong Kong, and the local population has been estimated to be less than 50 individuals (Barretto et al. 2011); therefore it is considered to be locally Endangered (Barretto et al. 2011). Since this species is highly habitat-specific (wet lowland grassland) and this habitat type is under threat in Hong Kong, Barretto et al. (2011) have urged that conservation action should be undertaken to protect this species and its habitat.

An area of dry agricultural land is present at PSO. This was originally a natural freshwater marsh (Figure 3) evolved from abandoned agricultural land. During the second half of 2012, it was reprofiled and converted into active agricultural land (Figure 4). Remnants of wetland- or marsh-associated plant species such as *Impatiens chinensis*, *Floscopa scandens*, *Ludwigia adscendens* and *Polygonum glabrum* are present in the marshy area surrounding the existing agricultural land. The vegetation coverage of this habitat is low and most of the plant species were recorded from the surrounding marshy area only. A total of 36 plant species were recorded with one species of conservation concern, the herb *Geissapis cristata*, identified.

One small piece of seasonally wet grassland is present at the southwest of the enclave. Although the grassland was dry during the survey, the presence of several patches of wetland-associated plants (such as *Polygonum* spp.) suggests that the area is able to retain sufficient water for their growth during the wet season. Dominant species within this habitat include wetland herbs (*Polygonum pubescens* and *Geissapis cristata*) and subshrubs (*Urena procumbens* and *Urena lobata*). Twenty-two plant species were recorded with one species of conservation concern, the herb *Geissapis cristata*.

Several watercourses were discovered to run through the whole enclave, mainly under the canopy of the native secondary woodland. These watercourses are semi-natural (with a natural bottom covered with boulder, gravel and sand). Plant species such as Acorus gramineus, Saurauia tristyla and Adina pilulifera were commonly recorded along the bank. A total of 26 plant species were recorded with three species of conservation concern identified including the fern Cibotium barometz, the woody climber Gnetum luofuense and the shrub Pavetta hongkongensis.

The developed/village area includes access roads and a number village houses. Plant coverage and diversity were low in this habitat. Plant species such as the climbers *Ipomoea cairica*, *Ficus pumila* and *Bougainvillea spectabilis* were commonly recorded. Fifteen species were recorded with no species of conservation concern identified.

A small ruderal area (sparcely vegetated waste ground) is present behind the PSO village area. Species such as Aporusa dioica, Pavetta hongkongensis and Maesa perlarius were recorded. Fifteen plant species were recorded with one shrub species of conservation concern, Pavetta hongkongensis, identified.

3.1.2 Nam Shan Tung

Five habitats were identified within the NST study area, including native secondary woodland, fung shui woodland, developed/village area, natural watercourse and grassland. A habitat map is shown in Figure 5.

Native secondary woodland is the dominant habitat within this enclave, but the woodland in the lowland area is relatively young. It is believed that the lowland woodland evolved from abandoned farmland through natural succession. The remaining part of the woodland is located on the hillside and is relatively mature. The canopy of this habitat mainly consists of native tree species Schefflera heptaphylla, Aporusa dioica, Cratoxylum cochinchinense and Cinnamomum parthenoxylon. Dominant species in the understory include common shrubs (Psychotria asiatica and Ardisia crenata), ferns (Blechnum orientale and Cyclosorus parasiticus) and climbers (Byttneria aspera). A total of 60 flora species were identified. Two flora species of conservation concern were identified, comprising the fern Cibotium barometz and the climber Gnetum luofuense.

A fung shui woodland is present in the middle of the enclave and behind the village. It consists of a closed canopy of common fung shui woodland tree species such as Aporusa dioica and Schefflera heptaphylla, and other native trees such as Mallotus paniculatus, with a well-developed understory dominated by the fern Blechnum orientale, the climber Dalbergia benthamii and the shrub Psychotria asiatica. The presence of mature trees with an average DBH (Diameter at Breast Height) of 30-60cm and well-developed woody climbers indicates that the habitat represents old-growth woodland with limited human disturbance. This fung shui woodland supports moderate plant diversity (58 species) with two species of conservation concern identified, including the tree Aquilaria sinensis and the woody climber Gnetum luofuense.

Several watercourses were found running through the enclave, mainly under the canopy of the secondary woodland. These watercourses are largely natural (i.e. with a natural bottom). Plant species such as the riparian herb Acorus gramineus and the trees Saurauia tristyla and Adina pilulifera were commonly recorded along the watercourses. A total of 17 plant species were recorded with one species of conservation concern, the fern Cibotium barometz, identified.

The developed/village area is located in the middle of this enclave. Some abandoned village houses are overgrown with vegetation. Plant coverage and diversity are low in this habitat. Plant species such as the trees Mallotus paniculatus and Ficus hispida and exotic climber Bougainvillea

Publication Series No.12

page 7

spectabilis were commonly recorded. Eighteen species were recorded with no species of conservation concern.

3.1.3 Pak Tam Au

Twelve habitats were identified within the PTA study area, including native secondary woodland, fung shui woodland, plantation, grassland, seasonally wet grassland, marsh, natural watercourse, channelized watercourse, pond, shrubby grassland, waste ground and developed/village area. A habitat map is shown in Figure 6.

The area surrounding the enclave comprises predominantly young secondary woodland. The mixed canopy consists mainly of Alangium chinense, Bischofia javanica, Cleistocalyx operculatus, Machilus chekiangensis, Mallotus paniculatus and Viburnum odoratissimum. The woodland supports moderate to high plant diversity, with a total of 103 flora species identified. Two species of conservation concern were identified, including the tree Aquilaria sinensis and the shrub Pavetta hongkongensis.

Fung shui woodland is located to the north and behind the village. The overstorey is dominated by a closed canopy of common fung shui woodland tree species such as Aporusa dioica, Alangium chinense and Schefflera heptaphylla. The understorey is well-developed and dominated by the shrubs Ardisia crenata, Uvaria macrophylla and Psychotria asiatica. The presence of mature trees with an average height of 12-16 m indicates that the habitat consists of old-growth woodland. The fung shui woodland supports moderate plant diversity (60 floral species identified) with one species of conservation concern, the tree Aquilaria sinensis, present.

Two patches of plantation are present in the middle of the enclave. They comprise mainly exotic plantation tree species such as Acacia confusa, together with common native but planted tree species (i.e., Ficus microcarpa). The understory consists of common shrubs (such as Melastoma malabathricum, Urena lobata and Rhodomyrtus tomentosa). A total of 44 floral species were recorded with one species of conservation concern, the tree Aquilaria sinensis, identified.

Grassland is present in the middle of the enclave, and this area is maintained by feral cattle. Dominant species include herbs (*Ischaemum barbatum*, *Axonopus compressus* and *Chrysopogon aciculatus*) and shrubs (*Melastoma malabathricum*). The grassland supports moderate plant diversity (80 plant species), with one species of conservation concern, the herb *Geissapis cristata*, identified.

One small area of seasonally wet grassland was identified at the edge of the grassland habitat (on the northeastern side). Although the area was dry during the survey period, the presence of several patches of wetland-associated plants such as *Philydrum lanuginosum* suggested that water accumulates during the wet season. Dominant species within this habitat include wetland herbs (*Philydrum lanuginosum*, *Paspalum scrobiculatum* var, *orbiculare* and *Pycreus polystachyus*). Eleven plant species were recorded with one species of conservation concern, the herb *Geissapis cristata*, identified.

Marsh is present at the edge of the grassland (also on the northeastern side), next to the seasonally wet grassland. It is maintained by feral cattle and appears wet enough for the establishment of some common wetland plant species, including Paspalum orbiculare, Pycreus polystachyus and Eriocaulon sp. The habitat supports limited plant diversity (21 flora species) with two species of conservation concern, the herb Geissapis cristata and the scarce and restricted orchid Liparis ferruginea. This orchid species is considered to be locally Endangered (Barretto et al. 2011).

Watercourses that are predominantly natural are located in the south and east of the enclave; some sections of the streams are bounded by retaining walls, and there are weirs present along several sections. At the time of the habitat survey, water was fairly shallow covering rocky substrate and with some deep pools. The surrounding habitat type along the natural watercourses is secondary woodland. A total of 20 plant species were recorded with no species of conservation concern identified.

The natural sections of the watercourse system are connected by a concrete channel in the middle of the enclave. However, the channel still functions as a corridor between two natural stream sections.

Two ponds are present in the north and in the centre of the enclave. They are located under the canopy of the secondary woodland and are overgrown with wetland-associated plants such as the fern Cyclosorus interruptus, the grass Leersia hexandra, the herb Commelina diffusa and the floating herb Eichhornia crassipes. The ponds are linked with the watercourses.

Shrubby grassland is located in the south of the enclave. Dominant species include shrubs such as *Melastoma malabathricum, Rhodomyrtus tomentosa* and *Glochidion lanceolarium* and the fern *Dicranopteris pedata*. The shrubby grassland supports limited plant diversity (36 plant species were recorded).

An area of waste ground is present in the southwest of the enclave. Most of the area is still bare exposed ground. Fifteen plant species were recorded.

Plant coverage and diversity in the developed/village area are low. Plant species such as the herb Ageratum conyzoides, and planted trees Psidium guajava and Ficus microcarpa were recorded.

3.1.4 Ko Tong

Thirteen habitat types were identified within the KT study area, including native secondary woodland, fung shui woodland, marsh, developed/village area, seasonally wet grassland, dry agricultural land, natural watercourse, ruderal area, marine area, mangrove, backshore vegetation, shrubby grassland and pond habitat. A habitat map is shown in Figure 7.

The enclave area comprises mainly native secondary woodland. The woodland in the lowland area appears to represent succession from abandoned farmland, and is considered to be fairly young. The remaining woodland on the hillside is relatively mature. The canopy of this habitat consists mainly of native tree species such as Alangium chinense, Mallotus paniculatus, Viburnum odoratissimum and Machilus chekiangensis. Dominant species below the canopy include common shrubs and trees such as Psychotria asiatica, Uvaria macrophylla and Daphniphyllum calycinum. A total of 86 flora species were identified. Two species of conservation concern, the tree Aquilaria sinensis and the shrub Pavetta hongkongensis, were identified.

Two stands of fung shui woodland are located behind the villages at KT and KTHY. Vegetation compositions of these two fung shui woodlands are similar and mainly consist of common fung shui woodland tree species such as Dimocarpus longan, Alangium chinense, Aporusa dioica and Schefflera heptaphylla. Understorey vegetation is well-developed, and includes the climber Byttneria aspera and shrubs Psychotria asiatica and Maesa perlarius. The presence of mature trees with an average height of 12-15 m and woody climbers indicates that the woodland is old and has had limited human disturbance. Since it is not easy to access the fung shui woodlands because of the difficult site conditions, surveys were conducted using binoculars from a distance and thus plant species recorded were limited (46 and 18 flora species were identified within the KT fung shui woodland and KTHY fung shui woodland respectively). Three species of conservation concern

were identified including the woody climber Gnetum luofuense, the shrub Pavetta hongkongensis and the tree Aquilaria sinensis.

Several natural watercourses run through the enclave, and under the native secondary woodland canopy. Plant species such as the trees *Cleistocalyx nervosum*, *Viburnum odoratissimum*, *Hibiscus tiliaceus* and the invasive climber *Mikania micrantha* are common along the stream banks. A total of 16 plant species were recorded with no species of conservation concern identified.

An area of mangrove is present along the seashore at TT (to the northeast of the enclave). Dominant species include common mangrove species such as *Kandelia obovata*, *Excoecaria agallocha* and *Aegiceras corniculatum*. A total of 12 plant species were recorded with no species of conservation concern identified.

Backshore vegetation is present behind the mangrove, and forms a transition between the mangrove and the secondary woodland and/ or shrubland. Vegetation found in this area is a mix of mangrove, shrubs and secondary forest species dominated by woody plants with an average height of 2-3 m. Dominant species include the trees *Hibiscus tiliaceus* and *Viburnum odoratissimum*, and the shrubs *Paliurus ramosissimus* and *Pandanus tectorius*. A total of 23 plant species were recorded with no species of conservation concern identified.

One small and one large freshwater pond were identified in the enclave. The area adjacent to the small pond was fenced off and no survey could be carried out. The large pond is located within the secondary woodland. With regard to the existing topography and location of this large pond, it appears that the pond connects to and collects water from seasonal streams flowing from the adjacent hillside. Vegetation surrounding the pond was mainly composed of woody plants such as the shrubs *Rhodomyrtus tomentosa* and *Glochidion zeylanicum*, and the tree *Mallotus paniculatus*.

Two areas of freshwater marsh were identified. One marsh is directly connected with the large pond; another marsh is located in the south of the enclave and near the village area. It is believed that these marshes have been utilized and maintained by feral cattle, and are mainly dominated by wetland- or marsh-associated plant species including the grasses *Ischaemum barbatum*, *Ischaemum ciliare* and *Panicum dichotomiflorum*, and other herbs *Geissapis cristata* and *Philydrum lanuginosum*. This habitat supports moderate plant diversity (40 species) compared with other similar freshwater habitats in Hong Kong, and one species of conservation concern, the herb *Geissapis cristata*, was identified.

Three small areas of dry agricultural land were identified in the middle, south and east of the enclave respectively. Common fruit tree species such as Citrus reticulata, Citrus maxima and Carica papaya and crop species, Ipomoea batatas, were recorded.

One small area of seasonally wet grassland was identified in front of the KTHY village. Although the area was dry during the survey period, the presence of several patches of wetland-associated plants such as *Polygonium* spp. suggests the area would be inundated during the wet season. Dominant species in this habitat include wetland herbs (*Geissapis cristata*, *Polygonum pubescens* and *Philydrum lanuginosum*) and shrubs (*Melastoma malabathricum* and *Glochidion zeylanicum*). Nineteen plant species were recorded, with one species of conservation concern, *Geissapis cristata*, identified.

Two areas of shrubby grassland were identified in the enclave, probably developed through the natural succession of the abandoned farmland. Dominant species include the shrubs (Lantana camara, Senna tora and Urena lobata) and herbs (Axonopus compressus and Mimosa pudica).

The developed/village area in this enclave comprises roads, village houses, a barbecue site and an open storage area. In general, plant coverage is low in this habitat type except for the barbecue site in the north of the enclave. Plant species such as the grass Axonopus compressus, the weedy climber Mikania micrantha and the weedy shrub Lantana camara were commonly recorded. This habitat supports limited plant diversity with 34 species recorded. One species of conservation concern, the tree Aquilaria sinensis, was identified near the barbecue site.

Three small areas of ruderal habitat are located at TT (north of the enclave) and KT (south of the enclave). Species such as the grass Axonopus compressus, the sub-shrubby herb Urena lobata, and the shrubs/small trees Ardisia quinquegona and Rhus hypoleuca were common. Thirty-four plant species were recorded, with one species of conservation concern identified, the shrub Pavetta hongkongensis.

3.1.5 To Kwa Peng

Ten habitats were identified within the TKP study area, including native secondary woodland, fung shui woodland, developed/village area, waste ground, shrubby grassland, ruderal area, mangrove, backshore vegetation area, marine area and natural watercourse. A habitat map is shown in Figure 8.

Native secondary woodland is the dominant habitat type within this enclave. The woodland is mainly composed of a closed canopy of common native tree species such as Aporusa dioica, Machilus chekiangensis, Schefflera heptaphylla and Sterculia lanceolata. The understorey is well developed, dominated by the fern Blechnum orientale, the herb Microstegium ciliatum and the shrubs Maesa perlarius and Sarcandra glabra. A total of 57 flora species were identified, with two species of conservation concern, the fern Cibotium barometz and the shrub Pavetta hongkongensis.

A small fung shui woodland is present behind the village area. It is composed of a closed canopy of common fung shui woodland tree species such as Aporusa dioica and Antidesma bunius, and other native trees such as Mallotus paniculatus. Its understorey is dominated by shrubs Lasianthus attenuatus, Sarcandra glabra and Psychotria asiatica. The presence of mature trees with an average height of 12-16 m suggests that the habitat represents old woodland with limited human disturbance. The fung shui woodland supports moderate plant diversity (64 floral species), including three species of conservation concern, the tree Aquilaria sinensis, the shrub Pavetta hongkongensis and the woody climber Gnetum luofuense.

Two natural watercourses are present in the east and the west of the enclave, predominantly covered by the canopy of the secondary woodland. The watercourses have natural stream beds. Plant species such as the common grass *Ischaemum barbatum*, the shrub *Pandanus tectorius* and the tree *Hibiscus tiliaceus* are common along the streamside. A total of eight plant species were recorded with no species of conservation concern identified.

An area of undisturbed mangrove is present along the shore. Dominant plants include common mangrove species such as *Kandelia obovata*, *Excoecaria agallocha* and *Avicennia marina*. During the survey, a total of 15 plant species were recorded with no species of conservation concern identified; however, Kwok *et al.* (2005) recorded a seagrass *Halophila minor* at the TKP mudflat, adjacent to the mangrove area.

Backshore vegetation is present behind the mangrove in the landward direction, forming a transition zone between the mangrove and the secondary woodland/shrubland. This habitat comprises a mix of mangrove, shrubs and secondary forest species, mainly dominated by woody plants with an average height of 2-3 m. Dominant species include the tree *Hibiscus tiliaceus*, the tree palm

Phoenix loureiroi, and the shrubs Pandanus tectorius and Paliurus ramosissimus. A total of 12 plant species were recorded with no species of conservation concern identified.

The developed/village area is located in the middle of the enclave. Plant coverage and diversity are low in this habitat. Weedy plant species recorded include climbers *Ipomoea cairica*, *Mikania micrantha* and the exotic shrub *Solanum torvum*. Sixteen species were recorded with no species of conservation concern identified.

A small waste ground area was identified in the west, close to the enclave boundary. It appears to be the remains of a village area. Grasses (Neyraudia reynaudiana and Microstegium ciliatum) and weedy climbers (Mikania micrantha and Pueraria lobata) were recorded. A total of 25 plant species were recorded with no species of conservation concern identified.

A shrubby grassland area is located in front of the village area, in the middle of the enclave. Dominant species include shrubs (Melastoma malabathricum, Lantana camara and Glochidion zeylanicum), herbs (Axonopus compressus and Praxelis clematidea) and climbers (Mikania micrantha). This habitat supports low to moderate plant diversity (41 species) with two species of conservation concern identified, the shrub Pavetta hongkongensis and the tree Zanthoxylum ailanthoides.

A ruderal area is present within the shrubby grassland. Plant diversity is low with only 12 species recorded. No species of conservation concern was identified and all species recorded are common and widespread in Hong Kong.

3.1.6 Chek Keng

Eight habitats were identified within the CK study area, including native secondary woodland, developed/village area, natural watercourse, ruderal area, mangrove, backshore vegetation area, grassland and marine area. A habitat map is shown in Figure 9.

Native secondary woodland is the dominant habitat type. The secondary woodland in the low-lying areas appears to have developed from abandoned farmland through natural succession. The remaining woodland on the hillside is considered to be relatively mature, and is covered to a significant extent by climbers such as Bauhinia glauca. The canopy of this habitat mainly consists of the native tree species Schefflera heptaphylla, Aporusa dioica, Alangium chinense and Glochidion zeylanicum. The understorey is dominated by common shrubs and trees (Psychotria asiatica, Ilex pubescens and Cratoxylum cochinchinense). The woodland supports moderately high plant diversity with a total of 164 flora species identified. Five flora species of conservation concern were recorded including the fern Cibotium barometz, the woody climber Gnetum luofuense, the shrubs Pavetta hongkongensis and Diospyros vaccinioides and the tree Aquilaria sinensis.

Several watercourses run through the enclave and mostly within the native secondary woodland. The watercourses are largely natural with natural stream bed retained. Most of the hillside streams at the western end were dry and are expected to be seasonally wet only. The two large stream systems in the middle and in the east of the enclave are permanent. Plant species such as the trees Cleistocalyx nervosum, Viburnum odoratissimum and the woody vine Gymnanthera oblonga were common at the location. A total of 42 plant species were recorded, with one species of conservation concern identified, the shrub Diospyros vaccinioides.

The developed/village area includes village houses and a pier. Plant coverage is low and plant diversity is limited in this habitat type. Orchard trees *Psidium guajava* and *Dimocarpus longan* were recorded. Thirty-nine species were recorded with one species of conservation concern identified, the tree *Zanthoxylum ailanthoides*.

A small area of ruderal habitat is present in front of the village area. The area appears to be abandoned farmland invaded by the ruderal vegetation such as the weedy climbers Mikania micrantha and Wedelia trilobata and the shrub Lantana camara. Some woody plants such as the tree Viburnum odoratissimum and Daphniphyllum calycinum were also recorded. Most of this habitat has been encroached by climbers ten plant species were recorded with no species of conservation concern.

An area of undisturbed mangrove is present along the shore. Common mangrove species *Kandelia obovata*, *Avicennia marina*, *Aegiceras corniculatum* and *Excoecaria agallocha* are dominant. A total of eight plant species were recorded with no species of conservation concern identified.

Backshore vegetation is present behind the mangrove in the landward direction, and forms a transition zone between the mangrove and the secondary woodland. Dominant species include the shrub *Paliurus ramosissimus*, and the trees *Hibiscus tiliaceus* and *Cerbera manghas*, which are often regarded as mangrove-associates. A total of 16 plant species were recorded with no species of conservation concern identified.

Grassland is present in the middle of the enclave. This area is constantly maintained by feral cattle and disturbed by human activities (e.g., camping). Dominant species include the herbs (Axonopus compressus, Chrysopogon aciculatus and Elephantopus scaber) and the small tree (Paliurus ramosissimus). The grassland supports moderate plant diversity (60 plant species) with one species of conservation concern identified, the tree Zanthoxylum ailanthoides.

3.2 Plant Species of Conservation Concern

The tree Aquilaria sinensis was recorded within all study areas. Topping and cut wounds were observed on some mature specimens with an average DBH of around 20-40 cm. This species is subject to illegal damage and removal at an unsustainable level. Populations may also be affected by destruction of suitable habitats locally. The species is listed as Near Threatened (NT) in the China Red Data Book and is under State protection (Category II) in China (Hu et al. 2003). It is also classified as Globally Vulnerable in the IUCN Red List of Threatened Species (IUCN 2013). In Hong Kong, this species is provided legal protection (Cap. 586).

The fern Cibotium barometz was recorded at CK, NST, TKP and PSO. This species is listed as Vulnerable (VU) in the China Red Data Book and is under State protection (Category II) in China (Hu et al. 2003). This species is protected under Cap. 586 in Hong Kong, but is suffering from overexploitation for traditional medicine.

The shrub Pavetta hongkongensis was recorded in all study areas except NST. The height of the individuals recorded range from 0.3-2.5 m. P. hongkongensis is a common shrub species found in tall thickets and forest in Hong Kong (AFCD 2009). The wild population of this species is protected under Forestry Regulation (Cap. 96A) in Hong Kong.

The orchid Liparis ferruginea was recorded at the marsh in PSOHY and PTA only. This species is regarded as scarce and restricted, and is Endangered in Hong Kong (Barretto et al. 2011). This species is highly habitat-specific, and the suitable habitats (mainly boggy, lowland grassland) are at greater risk of loss or degradation than most other local habitat types (Barretto et al. 2011). This species is protected under Cap. 96A and Cap. 586 in Hong Kong.

A specimen of the orchid *Ludisia discolor* is present in the woodland at PSO. This species is regarded as infrequent but widespread in Hong Kong by Barretto *et al.* (2011), who note that most of the local subpopulations are now feared extinct. They assign it a Red Data status of EN in Hong Kong.

The shrub *Diospyros vaccinioides* was recorded only in CK. All individuals recorded were in seedling or sapling form, with a height of around 0.3-1.5 m. This species is classified as Globally Critically Endangered on the IUCN Red List of Threatened Species (IUCN 2013). According to the IUCN Red List, the wild population of *D. vaccinioides* has been heavily-exploited and collected as an ornamental species in Taiwan, leading to the complete absence of mature trees in the wild.

The herb Geissapis cristata, which was recorded in the KT, PTA and PSO study areas only, is a locally rare species according to Xing et al. (2000). According to AFCD (2008), it is restricted to several locations in Hong Kong including Deep Water Bay, Tai Mong Tsai, Sai Keng and Lantau Island.

The woody climber *Gnetum luofuense* was recorded in all study areas except PTA. This species is listed as Globally Near Threatened on the IUCN Red list due to threats caused by habitat loss.

The herb *Houttuynia cordata*, which was recorded at PSO only, is locally a very rare species according to Xing *et al.* (2000). According to AFCD (2007), it is restricted to several locations in Hong Kong, including Lam Tsuen and Sha Lo Tung.

The tree Zanthoxylum ailanthoides was recorded in TKP and CK. A locally rare species (Xing et al, 2000), according to AFCD (2008), it is restricted to several locations in Hong Kong such as Chek Keng and Tai Long Sai Wan.

3.3 Amphibians and Reptiles

Most amphibian and reptile (herpetofauna) species are highly mobile and many are habitatgeneralists. As the CP enclaves are close to each other and their habitats are linked by intervening secondary woodland, it is expected that the herpetofauna communities in these enclaves would be similar to each other. Surveys have, however, recorded more species of conservation concern in certain enclaves; this could be due to the relatively higher habitat diversity of those enclaves, or simply due to unequal survey effort.

Herpetofauna species recorded from the enclaves, based on the personal observations of KFBG staff during the last decade, are listed in the table below.

Table 2. Herpetofauna species recorded

Species Name & Common Name	Conservation Status*	Habitat Requirement	PSO	NST	PTA	KT	TKP	CK
Bufo melanostictus Asian Common Toad	Nil	Generalist	+		+	+	4	70.5 44.5
Fejerarya limnocharis Paddy Frog	Nil	Marsh, agricultural land	+					4.3
Hoplobatrachus chinensis Chinese Bull Frog	1. Potential Regional Concern	Marsh, agricultural land, slow-flowing stream, pond	+					nedy-
Paa exilispinosa Lesser Spiny Frog	Potential Global Concern Vulnerable	Watercourse	+	(44)		1,11,14 1,1	n engle Lighte (No.	
Rana chloronata Green Cascade Frog	Nil	Watercourse	+	- 1 - 1 - 1 - 1 - 1				<u> </u>
Rana guentheri Gunther's Frog	Nil	Marsh, slow-flowing stream, pond, agricultural land	+		+	+		
<i>Rana latouchii</i> Brown Wood Frog	1. Local Concern	Woodland	+					

Species Name & Common Name	Conservation Status*	Habitat Requirement	PSO	NST	PTA	KT	TKP	СК
Rana taipehensis Two-striped Grass Frog	1. Local Concern	Marsh, pond	+					
Polypedates megacephalus Brown Tree Frog	Nil	Marsh, agricultural land, pond	+	vari is	+	+		
Boiga multimaculata Large-spotted Cat Snake	Nil	Woodland, shrubland	+		eranjar Historia	: ' .		3.23 F. 183
Bungarus fasciatus Banded Krait	Regional Concern Endangered	Generalist	+				14.11	告.
Bungarus multicinctus Many-banded Krait	Potential Regional Concern Vulnerable	Generalist	74 (d + +		* d * 2	+		
Cyclophiops major Greater Green Snake	Nil	Woodland	+	as W		+	A SASS	4 1
Elaphe porphyracea Red Mountain Racer	1. Local Concerп 3. Vulnerable	Woodland	+			+		20.65 313
Elaphe radiata Copperhead Racer	Potential Regional Concern Endangered	Generalist	+		+	+		
Enhydris plumbea Plumbeous Water Snake	Nil	Wetland	+					
Lycodon subcictus Banded Wolf Snake	Nil	Woodland	+					
<i>Naja atra</i> Chinese Cobra	Potential Regional Concern Vulnerable	Generalist	+ (),		16 +	+	33 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	nivi Nais
Oligodon cinereus Golden Kukri Snake	1. Local Concern	Woodland	+			+	2013/10/	10
Oligodon formosanus Taiwan Kukri Snake	Nil	Generalist	+		11 (4)	+		
Ophiophagus hannah King Cobra	Potential Regional Concern Vulnerable Critically Endangered	Generalist	eet ee		suite neile	# ₄₄ 5	u tratis Parili	*843
<i>Opisthotrophis balteatus</i> Banded Stream Snake	Nil	Watercourse	# · · ·	vija int		:	: J) []	
<i>Opisthotropis andersonii</i> Anderson's Stream Snake	Endemic to the region 1. Potential Global Concern 2. Near Threatened	Watercourse	+			8,7		
Pareas margaritophorus White-spotted Slug Snake	Nil	Woodland, shrubland	+		+ ::	+	1931A - 1931 - 1931	
Protobothrops mucrosquamatus Pointed-scaled Pit Viper	1. Local Concern	Woodland	+					
Psammodynastes pulverulentus Mock Viper	Nil	Woodland, shrubland, grassland	†			+		v jedy is Nordelija
Ptyas mucosus Common Rat Snake	Potential Regional Concern Endangered	Generalist	+		+	+	rest.	
Python bivittatus Burmese Python	Potential Regional Concern Vulnerable Critically Endangered	Generalist	+		+	+	+ 2	Burran Allen Allendari

Species Name & Common Name	Conservation Status*	Habitat Requirement	PSO	NST	PTA	KT	TKP	CK
Ramphotyphlops braminus Common Blind Snake	Nil	Generalist	+					200
Rhabdophis subminiatus Red-necked Keelback		Woodland, shrubland	+	utik iti Herrigia	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			+
Sibynophis chinensis Chinese Mountain Snake	1. Local Concern	Woodland	+			+1 +34	- 2	
Cryptelytrops (Trimeresurus) albolabris Bamboo Snake	Nil va afterfa vert sell () estança verti estança	Shrubland, grassland	**************************************		vei vei ve t st	.		
Xenocrophis piscator Checkered Keelback	Nil Company of the second	Wetland	+			0/4/4. 14/4		
Ateuchosaurus chinensis Chinese Forest Skink	Nil	Woodland	+					
Calotes versicolor Changeable Lizard	Nil	Lowland area, shrubland, agricultural land	4		+	+		+
Eumeces chinensis Chinese Skink	Nil and the second states	Lowland area, shrubland, agricultural land	+	71 (1) 71 (1)	+		214.1	
Plestiodon tamdaoensis Vietnamese Five-lined Skink	Found in Hong Kong recently, highly restricted in distribution (Chan et al. 2009)	Woodland	101/4 41/54 25/4					
Gekko chinensis Chinese Gecko	Nil	Generalist	1 23.5 +		+	W.V. Vojes		
Gekko gecko^ Fokay Gecko	Regional Concern Endangered	Woodland	+			evedi Saad		Kiri.
Hemidactylus bowringii Bowring's Gecko	Nil	Generalist	+		478 X 443 X		1477 V	
Mabuya longicaudata Long-tailed Skink	Nil	Generalist			4			eren eren
Scincella reevesii Reeve's Smooth skink	Nil	Woodland	4			3 4	2000	AND THE STREET
Sphenomorphus indicus ndian Forest Skink	1. Local Concern	Woodland	+					
Cakydromus sexlineatus Grass Lizard	Nil	Grassland, woodland	+					
<i>Tropidophorus sinicus</i> Chinese Waterside Skink	Nil y _e again shakara na sa	Stream	+			+		* -,

^{*1.} Fellowes et al. (2002); 2. IUCN Red List (IUCN 2013); 3. China Red Data Book (AFCD 2013)

Herpetofauna diversity at PSO, PTA and KT is considered to be relatively high; the habitat mosaic in these enclaves probably contributes to the high diversity. The presence of marsh and seasonally wet grassland can greatly enhance habitat heterogeneity (i.e., breeding site for amphibians). We should also point out that the number of species discovered would also be reflected by survey effort which may not have been equal for all sites.

In addition, a reptile species of high conservation concern (not listed in Table 2) has been discovered in KT and PSO, and because the wild populations are under severe threat the identity has not been reported in this document. The species is Critically Endangered (IUCN 2013). Another

[^]Some scholars consider that the South China G. gecko should be renamed as G. reevesii (Rösler et al. 2011)

herpetofauna species considered to be Globally Endangered (IUCN 2013) has also been found in PSO. The two species can utilize streams, marshes, riparian areas and woodlands.

3.4 Fish

All enclaves contain aquatic habitats (streams, ponds and marshes) that support aquatic fauna and several fish of conservation importance. The estuaries at KT, TKP and CK are also believed to be fish nurseries (see below).

3.4.1 Fish Species of Conservation Importance

The watercourses (both channelized and natural) and the two ponds at PTA provide habitats for Hong Kong Paradise Fish (*Macropodus hongkongensis*). This species was once considered endemic to Hong Kong, and it is considered to be a key species of conservation importance by AFCD (AFCD 2013) and of Global Conservation Concern by Fellowes *et al.* (2002). This species can also be found in the Hau Tong Kai stream at TT (the KT enclave).

Watercourses and associated marshes at PSO provide habitats for a rare fish *Pseudobagrus trilineatus*. This catfish species can only be found at two sites in Hong Kong and is considered to be a key species of conservation concern by AFCD (2013). KFBG staff observations confirm that this species is also present in watercourses at NST, which belong to the same stream network.

One Giant Marbled Eel (Anguilla marmorata) was discovered in the watercourse at PSO. This is a catadromous species which needs to migrate between the sea and the stream; in order to protect this species, the stream-ocean corridor should not be blocked (i.e., channelized at sections or culverted); stream flow and the stream bed should remain natural (e.g., stream flow should not be reduced); simply speaking, the whole stream should be preserved in order to protect this species. The conservation status of this species is as follows: conservation concern (AFCD 2011a), Endangered in the China Species Red List (AFCD 2011a), Class II State Key Protected Wildlife in China (AFCD 2011a) and Global Conservation Concern (Fellowes et al. 2002). The presence of this species at PSO indicates that the stream system in this enclave is still linked with the sea, and thus can provide habitats for diadromous species. This species will spend a considerable amout of its life in streams with natural bottoms (with large rocks, gravel and sand). We believe that several streams in other enclaves can also provide suitable habitats for this species as the streams are largely natural and connected to the sea (PTA: connected to Pak Tam Chung; NST: connected to PSO and eventually to Hoi Ha Wan; KT, TKP and CK streams: coastal); for instance, we have observed a Mittern Crab (also a diadromous species) at PTA.

A rare goby, Stiphodon multisquamus, was found in the two main watercourses at CK during the survey, and has also been observed in the main stream at KT (KFBG Staff Pers. Obs.). This is an amphidromous species with a complex life cycle: adults live and breed in freshwater streams; eggs hatch in freshwater streams and larvae drift passively to the sea; larvae grow in the marine environment and juveniles actively return to freshwater streams. Therefore, in order to protect this species, the stream-ocean corridor should not be blocked; stream flow and the stream bed should remain natural (e.g., stream flow should not be further reduced); simply speaking, the whole stream should be preserved. It is a species considered to be of Global Conservation Concern by Fellowes et al. (2002) and Nip (2010), and is considered to be Endangered in China (Wu and Zhong 2008). It is also considered to be endemic to China (Wu and Zhong 2008). Another rare goby, S. atropurpureus, has also been found in the main stream at KT (KFBG Staff Pers. Obs.). It is also an amphidromous species, and is considered to be of Global Conservation Concern by Fellowes et al. (2002), although Nip (2010) considers it to be of Regional Conservation Concern as this species is common in the Philippines (Watson and Chen 1998). The stream system at TKP should also be able to provide habitats for the aforementioned goby species.

3.4.2 Marine Fish Nursery

During the survey in the estuaries at CK, many juvenile fishes were observed (e.g., Figure 10). These estuaries and those at TKP and KT are believed to function as fish nursery habitats. Nip and Wong (2010) considered that mangrove mudflats in eastern Hong Kong provide nursery habitats for fishes; it is thus considered that the mangrove areas at KT, TKP and CK are likely to provide this function.

3.5 Crustaceans

AFCD has conducted a detailed Sesarmine Crab survey and identified that TT (Tai Tan, within the KT enclave) and TKP are important areas for Sesarmine Crabs (Kwok and Tan 2005); an endemic Sesarmine Crab, *Pseudosesarma patshuni*, was also found at TT and TKP during their survey. Kwok and Tang (2005) also considered that the riparian zone, stream, estuary, marsh, mangrove and backshore vegetated area are ecologically important to Sesarmine Crabs, and the diversity of Sesarmine Crabs can indicate the "intactness" of the mangrove ecosystem.

During the site visit conducted in June 2012 at CK, the riparian zones of the streams were found to contain many burrows of Sesarmine Crabs (Figure 11). Certain species were also recorded far from the shore, including one considered to be less commonly found in Hong Kong – Chiromantes haematocheir (Figure 12). According to Kwok and Tang (2005), only a healthy mangrove ecosystem can contain enough habitat heterogeneity for a diverse Sesarmine Crab community. The observations made during this site visit indicate that CK, like its adjacent areas (TT and TKP), also contains a diverse Sesarmine Crab community and this implies that the mangrove ecosystem is intact (i.e., containing estuaries, streams, natural riparian zones, marshes, mangrove, and backshore vegetation).

A shrimp with restricted distribution, *Palaemon debilis*, which only appears in estuaries along the eastern coast of Hong Kong, was found at the mouths of both streams at CK. In China, this species has only been reported from Hainan Island (Li et al. 2007). Thus Hong Kong is the second site in China where this species is known to occur and is also the only known site currently where this species can be found on the Mainland. In view of its restricted distribution, we consider that *P. debilis* is of conservation concern. The species should also be present at KT and TKP (estuarine habitats).

A freshwater shrimp, *Macrobrachium meridionalis*, an amphidromous species, was also discovered in a stream at CK. This species is not common in Hong Kong and is of local conservation interest (KFBG Staff Pers. Obs.). This species should also be present in the watercourses at KT and TKP.

3.6 Birds

The subject enclaves are all located within the general locality of Long Harbour (Tai Tan Hoi), and the westernmost and easternmost enclaves, NST and CK respectively, are separated by only 4.2 km. Given the mobility of birds, similar habitats within these enclaves are likely to support similar avifauna communities. Consequently, descriptions of bird occurrence have been carried out by habitat, rather than by enclave. Although the relative abundances of species within given habitats in each enclave may differ, broadly speaking species composition would be very similar.

Appendix 2 lists species that have been recorded in Sai Kung West CP based on Carey et al. (2001), subsequent issues of the Hong Kong Bird Report, data collected for the Hong Kong Bird Watching Society Winter Atlas project and surveys undertaken for the present report. Where a species occurrence within the enclaves can reasonably be predicted based on adjacent records indicated in the above sources, this is also mentioned.

3.6.1 Secondary Woodland and Fung Shui Woodland

These closely-related habitats are dominant across all enclaves, constituting 61.47% to 84.55% of the area of each, and 75.78% across all six enclaves. They are also the richest in terms of the diversity of the avifauna, particularly in the months October to February, when local bird populations are joined by migrants and winter visitors from further north. The habitats support a substantial number of species categorized by Fellowes et al. 2002 as of Local Concern; in addition, the Brown Fish Owl, which is of Regional Concern, is dependent on undisturbed, natural watercourses with good water quality, which are closely associated with forested areas. A Brown Fish Owl has been recorded uttering a territorial call from a location in the PSO enclave, indicating breeding in the vicinity (survey team, pers. obs).

3.6.2 Shrubby Grassland

Although the shrubby grassland habitat supports a similar range of species as secondary woodland, overall diversity of species and abundance of individuals is lower, and certain forest specialists are absent.

3.6.3 Grassland

No grassland specialist species were recorded. It is suggested that the Eurasian Eagle Owl may utilize the grassland habitats adjacent to the enclaves; but it should be noted that this species has a fairly wide home range.

3.6.4 Dry Agricultural Land

In the studied enclaves, this habitat supports low species diversity.

3.6.5 Seasonally Wet Grassland

The seasonally wet (rather than permanently wet) nature of this habitat with its lack of microhabitat diversity leads it to support a low diversity of common and widespread species. In addition, only very small patches of this habitat are present (at PTA, KT, CK and PSO).

3.6.6 Marsh

Marsh habitat is present in three enclaves: PSO, PTA and KT. Small ardeids, White-breasted Waterhen and Eurasian Woodcock utilize these marshes; in addition, the Brown Fish Owl has been recorded foraging in the marsh at PSO.

3 6 7 Pond

Pond habitat is present only at PTA and KT. The area of this habitat is very small, and individual ponds are fragmented; both diversity and abundance of wetland-dependent bird species was low.

3.6.8 Natural Watercourse

Natural watercourse habitats are present in all enclaves, commonly flowing through forested areas. The Brown Fish Owl forages in undisturbed, unpolluted lowland streams and tidal creeks (Carey et al. 2001); many HK records refer to stream sections with slower water flow, especially at the interface of freshwater and marine environments. Such conditions can be found at CK and KT, and it may be that this species forages in these areas.

The natural watercourse running through NST and PSO is the Hoi Ha Stream, of which the section through PSO is designated as an Ecologically Important Stream (EIS) by AFCD. The lower reaches of this stream, where it meets the sea at Hoi Ha Wan, is known to be frequented by the Brown Fish Owl; thus, changes in water quality of the upper reaches may impact this species. However, the species has also been recorded foraging in marsh habitat in PSO and also the upper sections of Hoi Ha Stream (within NST, PSO and PSOHY) where the stream course is narrow but sufficiently broad to provide sheltered areas of less disturbed water.

AFCD (2013) stated that the Brown Fish Owl is a scarce resident in Hong Kong, and has been recorded at TT (in the KT enclave). This species is considered to be of Regional Conservation Concern by Fellowes *et al.* (2002).

3.6.9 Mangrove and Seashore

The closely-linked habitats of sea and mangrove are present at CK, TKP and KT. The area of mangrove habitat at each, however, is very small. Ardeids (including larger species) forage in these areas, while smaller waterbirds such as Common Kingfisher and White-breasted Waterhen are present along the coastal strip.

3.6.10 Backshore Vegetation

This habitat is similar in structure to shrubland habitat, though it supports a less abundant and diverse bird community largely confined to species common and widespread in Hong Kong.

3.6.11 Ruderal Area, Developed/ Village Area and Waste Ground

These highly man-modified habitats support a very limited community of common and widespread bird species.

3.7 Mammals

According to Shek (2007), Chinese Porcupine (Hystrix brachyura), Masked Palm Civet (Paguma larvata) and Red Muntjac (Muntiacus muntjak) have been recorded in the Sai Kung CP; Shek (2006) includes a photograph of a roadkill Masked Palm Civet recorded at PSO. The porcupine is considered to be of Potential Global Concern and the civet and deer of Potential Regional Concern (Fellowes et al. 2002). A former resident of PSO has observed the Chinese Porcupine and Red Muntjac in the woodland at PSO (Christophe Barthelelmy pers. comm.). A detached quill of a Chinese Porcupine was found in the PTA enclave (Figure 13; KFBG Staff pers. obs.). Based on anecdotal reports, it appears that Chinese Porcupine is fairly common in the woodland areas of the Sai Kung Country Park.

Woodlands in the locality can be utilized by a wide range of mammal species. Indeed, the Chinese Pangolin (Manis pentadactyla) has also been recorded within and adjacent to these enclaves (AFCD Staff pers. comm.). The Chinese Pangolin is considered to be Globally Endangered (IUCN 2013); it is also rare and of conservation concern in Hong Kong (AFCD 2013). The Greater Short-nosed Fruit bat (Cynopterus sphinx) and the Himalayan Leaf-nosed bat (Hipposideros armiger) have a wide distribution in Hong Kong and both species have been recorded in Sai Kung. Fan palms adjacent to village areas provide roost sites for the fruit bat and the leaf-nosed bat has been found utilising old abandoned village buildings in enclaves. Although not recorded in the present survey both species are expected to be present in or adjacent to the enclaves under this study.



4. Habitats of High Conservation Importance

4.1 Watercourses and Riparian Zones

Watercourses and associated riparian zones within the enclaves are of high conservation importance, primarily because they support many species of conservation concern and the habitats are well-connected with other nearby habitats (mainly secondary woodland). As indicated earlier, several fish species of conservation importance, endangered herpetofauna species and a scarce bird (Brown Fish Owl) depend on these habitats. In the KT, TKP and CK enclaves, riparian areas (including the watercourses) provide habitats for the Sesarmine Crab community; the stream estuaries also function as fish nurseries, and provide migratory paths for diadromous species.

4.2 Woodlands

Plant species of conservation concern flourish in the woodlands (both secondary and fung shui) of all six enclaves, and some species of global conservation concern were recorded, such as the Incense Tree (Aquilaria sinensis), Gnetum luofuense (a woody climber), Diospyros vaccinioides (a shrub) and the orchid Ludisia discolor. The woodlands provide suitable roosting habitats for the Brown Fish Owl, and are home to wild mammals and several herpetofauna species of high conservation importance. The woodlands at KT, TKP and CK also support a Sesarmine Crab community. In conclusion, we consider that the woodlands, with their intactness and their connectivity to the surrounding CP, are of high conservation importance.

4.3 Mangroves and Backshore Vegetation

Tam and Wong (2000) considered that the mangrove stands at TT (Tai Tan, within the KT enclave), CK and TKP are of conservation concern; TT and CK are considered to be "very important" and TKP to be "important". Our findings and also data from Kwok and Tang (2005) also reflect that these habitats (mangrove and backshore vegetation) are important and key to supporting the Sesarmine Crab community. The backshore vegetation areas are ecologically linked with mangroves and other important habitats nearby (i.e. streams, woodlands); they should not be considered as of low value or low concern as they are integral to other habitats and can function as an important buffer (e.g., for the mangrove), and indeed these areas are also habitats for many important species (i.e., the Sesarmine Crabs); backshore vegetation adjacent to streams provides suitable hunting and roosting perches for Brown Fish Owls and habitat for herpetofauna of conservation importance. We thus conclude that the two habitats described here should be considered of high conservation importance, and should be protected.

4.4 Marshes and Seasonally Wet Grasslands at PSO and PTA

A locally endangered orchid species was present in the marshes at PSOHY and PTA. This species also has legal protection in Hong Kong. The marshes at PSO (those adjacent to the watercourse) are known to support the rare catfish (*Pseudobagrus trilineatus*), which can only be found in the PSO area (including NST) and at one other site in Hong Kong. Since the seasonally wet grassland can provide suitable habitat for the endangered orchid (it requires boggy, lowland grassland), we consider that both the marsh areas and seasonally wet grasslands in the PSO (including PSOHY) and PTA enclaves should be protected.

4.5 Ponds at PTA

The two ponds at PTA contain the Hong Kong Paradise Fish, which is a key fish species of conservation concern in Hong Kong (AFCD 2013). Besides protecting these ponds, we recommend that the areas surrounding (as buffer) and watercourses connected with these ponds should also be protected.



4.6 Riparian Grasslands at CK

Riparian grassland at CK forms an integral part of the Sesarmine Crab habitat (Figure 11). In order to protect the crab species, these grasslands should not be disturbed.

4.7 Pond and Associated Marsh at KT

The large fresh water pond at KT (in the south of the enclave) is not a common landscape in Hong Kong – it appears to be a natural pond. The pond and its associated marsh should be protected.

4.8 Existing Agricultural Land at PSO

The large area of agricultural land at PSO should be protected. Although it may have a lower ecological value than the original marsh, it still provides suitable habitat for wildlife. If it is paved, it will no longer be able to provide habitats for any fauna of conservation concern at the site, and the enclave will also suffer from the fragmentation effect; thus the ecological value of the land and also the whole enclave would be adversely affected.



5. Recommendation

The information in this report highlights the uniqueness of the habitats within the six reported enclaves, and the necessity to protect them from significant adverse impacts. In May 2011, the Convention on Biological Diversity (CBD) was extended to Hong Kong by the Central People's Government, and the Hong Kong Government has commenced a dialogue with Environmental NGOs, experts and Local Concern Groups regarding a strategy for the implementation of the CBD and the development of a local Biodiversity Strategy and Action Plan. With strategic guidance from the Convention, the Authorities have added pressure to safeguard the territories rich natural heritage and ensure that the mosaic of inter-related habitats and vegetated corridors are maintained. Not only the Country Parks require continued protection and high vigilance, but many lowland and coastal areas are integral parts of our rich ecosystems and should not be fragmented, encroached or destroyed.

We hope that the recommendations below will guide future decision making regarding the environment within the Sai Kung Enclaves:

- 1. The above areas and habitats of high conservation importance should be covered by an appropriate land zoning category that provides relevant protection such as the Conservation Area (CA) zone under the planning system. No development incompatible with surrounding areas or the natural heritage of the sites should be authorized.
 - From ecological and nature conservation perspectives, due to the strong ecological and functional linkages the enclaves are very much part of the Country Park system, and thus the Government should consider incorporating the enclaves, or areas of high conservation importance within enclaves into the Sai Kung Country Park.
- 2. The enclaves and the Sai Kung peninsular are frequented by many hikers, nature lovers and citizens wishing to escape from urban areas. Any further development within the enclaves will add pressure to the ecosystem of the Sai Kung area (e.g., potential pollution impact on nearby water bodies) and also to the road system (e.g., increased road traffic causing disturbance and fragmentation impacts on fauna). The authorities should maintain a broad and holistic view regarding any planning or changes within these enclaves.
- 3. Appropriate and enforceable planning control should be prioritized for all enclaves, and there should be a willingness to enforce existing conservation acts under the local conservation protection legislation wherever they are being contravened.

KFBG

Publication Series No.12

page 23

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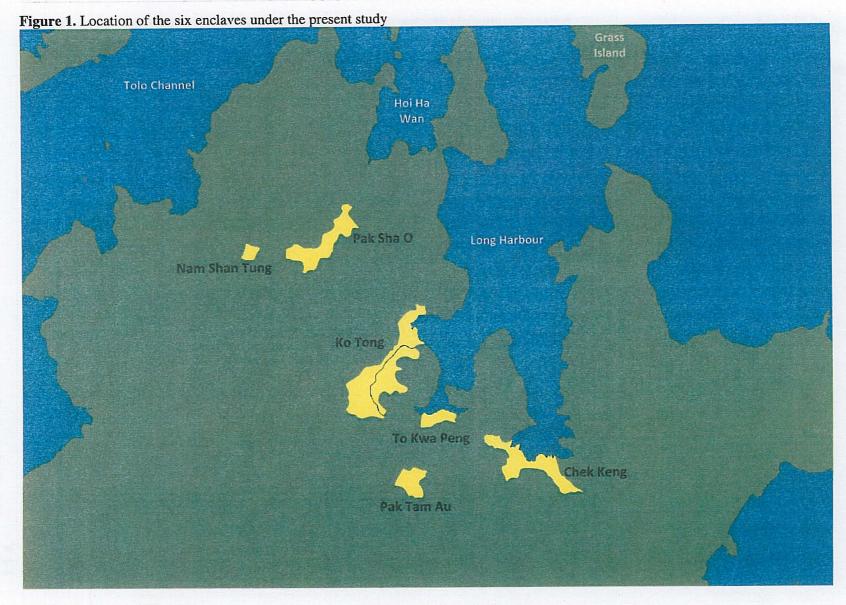
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Figures





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page 27

Figure 2. Habitat map of Pak Sha O and Pak Sha O Ha Yeung

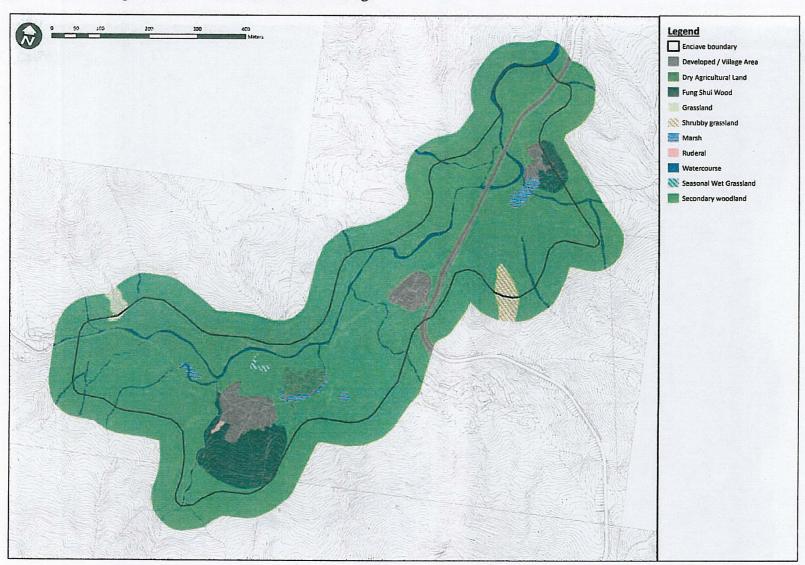




Figure 3. A natural freshwater marsh at Pak Sha O



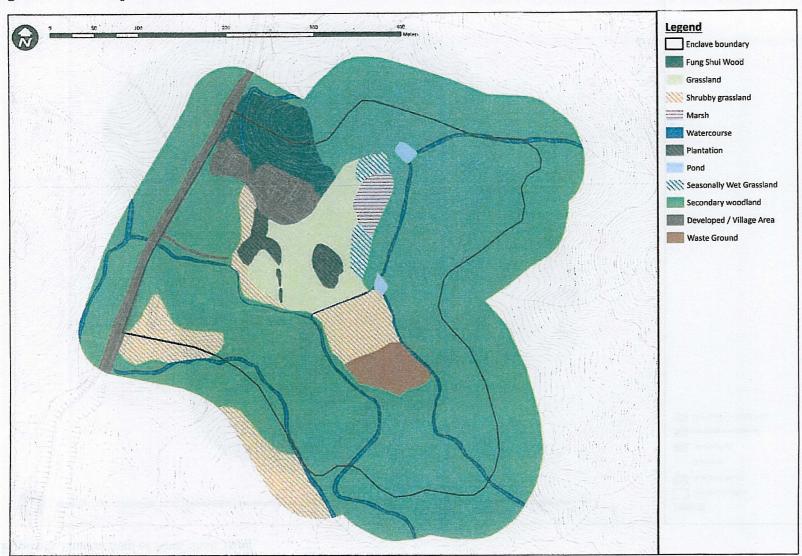
Figure 4. The natural freshwater marsh was re-profiled into an active agricultural land during the second half of 2012



Figure 5. Habitat map of Nam Shan Tung



Figure 6. Habitat map of Pak Tam Au



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Figure 7. Habitat map of Ko Tong

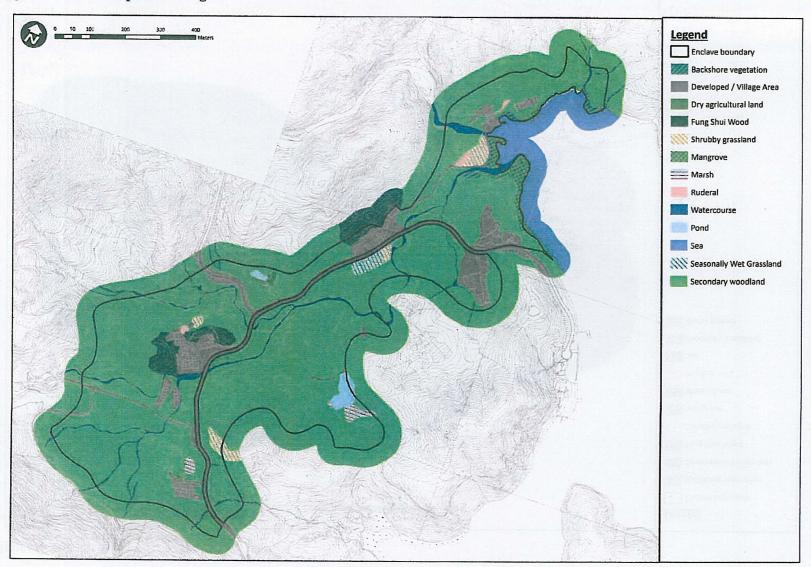
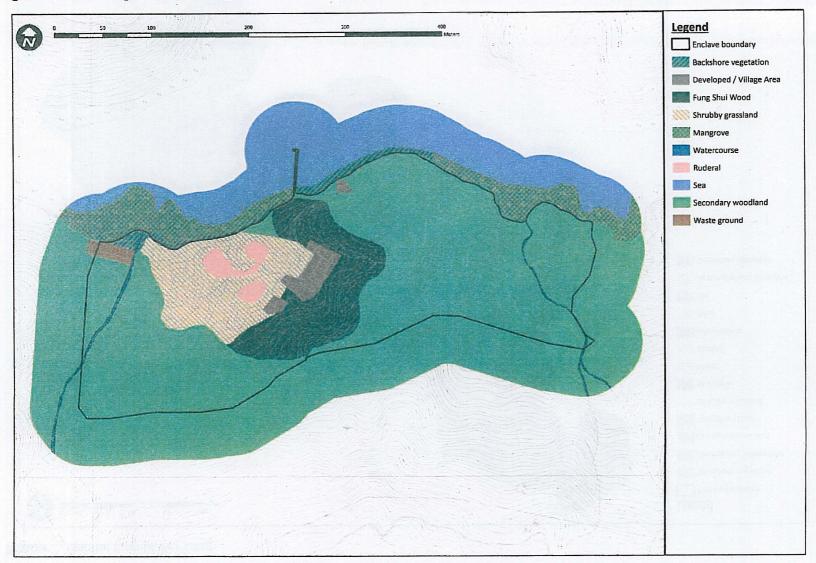


Figure 8. Habitat map of To Kwa Peng





K F B G Publication Series No.12

page 33

Figure 9. Habitat map of Chek Keng

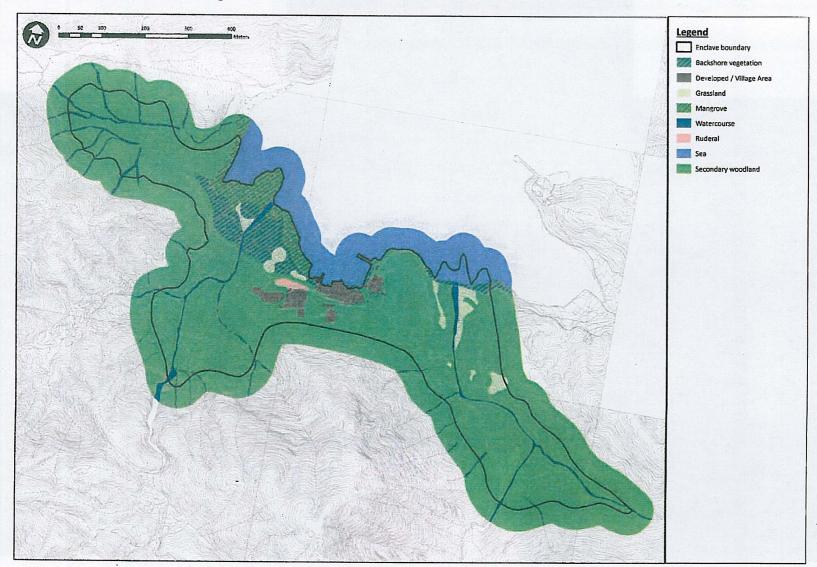
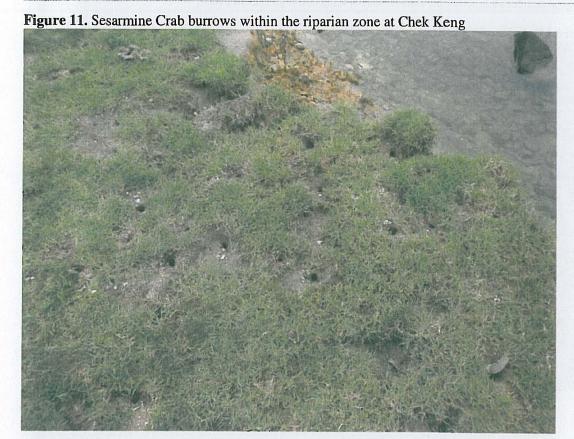
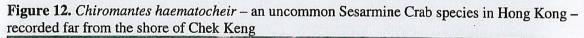




Figure 10. Juvenile fishes observed in the estuaries at Chek Keng









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Figure 13. A detached quill of a Chinese Porcupine found in the Pak Tam Au enclave

K F B G

Publication Series No.12

page 37

Appendices



Appendix 1. Flora Species Recorded within Each Enclave



Table A1-1. Flora species recorded within Chek Keng enclave

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Backshore Vegetation*	Grassland	Secondary Woodland	Natural Watercourse	Ruderal Area	Developed / Village Area	Mangrove
Abutilon indicum	磨盤草	Subshrub	Restricted						*	
Acacia confusa	台灣相思	Tree	Exotic, Common, often planted in plantation		*	*		·····	-	
Adiantum flabellulatum	扇葉鐵線蕨	Herb	Very common			*	*			
Adiantum malesianum	南洋鐵線蕨	Herb	Соттоп				*			
Adina pilulifera	水團花	Tree	Very common		-	非非	une fare and			
Adinandra millettii	黄瑞木	Tree	Common			*				
Aegiceras corniculatum	桐花樹	Shrub	Common	*4:						水水
Alangium chinense	八角楓	Tree	Common			**		,		
Alocasia macrorrhizos	海芋	Herb	Very common			*			*	
Alyxia sinensis	念珠藤	Woody climber	Common		2 24 2	*				
Amaranthus viridis	野莧	Herb	Very common						*	
Anisomeles indica	廣防風	Herb	Common		*				*	
Antidesma bunius	五月茶, 五味 子	Tree	Common			**				
Aporusa dioica	銀柴	Tree	Very common			***				
Aquilaria sinensis	土沉香	Tree	Common, Protected under Cap. 586, listed as Near Threatened (NT) in the China Plant Red Data Book and is under State protection (Category II) in China (Hu et al. 2003), classified as Critically Endangered (CR) on the IUCN Red List			*				
Archidendron clypearia	猴耳環	Tree	Common			*				

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Backshore Vegetation	Grassland.	Secondary Woodland	Natural Watercourse	Ruderal Area	Developed / Village Area	Mangrove
, angraja silanga								a		
Archidendron lucidum	亮葉猴耳環	Tree	Common			*				
Ardisia crenata	大羅傘	Shrub	Common			**			-	
Ardisia lindleyana	山血丹	Shrub	Common		<u> </u>	*				
Ardisia quinquegona	羅傘	Small tree	Very common			*				
Atalantia buxifolia	酒餅簕	Shrub	Common	1	*	*	*			
Avicennia marina	白骨壤	Tree	Common	*						水水
Axonopus compressus	地毯草	Herb	Exotic, Common		**	. Jane State		*	*	
Bambusa sp.	竹屬	Bamboo	Common			*				
Bauhinia glauca	粉葉羊蹄甲, 羊蹄甲藤	Woody climber	Very common			***				
Berchemia floribunda	勾兒茶	Climbing shrub	Common			*				
Bidens alba	白花鬼針草	Herb	Exotic, Very common			*				
Blechnum orientale	烏毛蕨	Herb	Very common			*	*			
Bombax ceiba	木棉	Tree	Exotic, Exotic, common for roadside planting					:	*	-
Bougainvillea spectabilis	簕杜鵑	Climbing shrub	Exotic, Common						*	
Breynia fruticosa	黑面神	Shrub	Very common		*	非				
Bridelia tomentosa	土蛮樹	Tree	Very common		*	*		<i>.</i>		
Brucea javanica	鴉膽子,苦參 子	Shrub or tree	Common		3 ;	*				
Caesalpinia crista	假老虎簕	Woody climber	Very common			*				1. #13.1
Caesalpinia vernalis	春雲實	Woody climber	streamside, lowland, common		**	an Japagel Lipus pas		ETECHTAL North Company		

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Backshore Vegetation*	Grässländ	Secondary Woodland	Natural Watercourse	Ruderal Area	Developed / Village Area	Mangrove
Callicarpa kochiana	枇杷葉紫珠	Shrub	Common		*	*				
Canavalia lineata	狹刀豆	Climber	Common	1		*				
Carallia brachiata	竹節樹	Tree	Common			*	-		:	
Carica papaya	番木瓜	Tree	Exotic, Cultivated for food			Asa			*	
Cassytha filiformis	無根藤	Parasitic climber	Very common			*				
Casuarina equisetifolia	木麻黄	Tree	Exotic, Often planted in plantation and along roadside, apparently semi-naturalized in the nature			*				
Celtis sinensis	朴樹	Tree	Common			*			*	
Centella asiatica	崩大碗	Herb	Very common	1		*				
Centotheca lappacea	假淡竹葉	Herb	Common			*				
Cerbera manghas	海芒果	Tree	Common	非非非	*	**	**			
Cheilosoria tenuifolia	薄葉碎米蕨	Herb	Common			*	ж			
Chloris barbata	孟仁草	Herb	Very common		*					
Chrysopogon aciculatus	竹節草, 假雀 麥	Herb	Very common		***					
Cinnamomum varthenoxylon	黄樟	Tree	Common			**				
Citrus maxima	柚	Tree	Exotic, Cultivated for food					*		
Citrus reticulata	桔	Small tree	Common	1,		11.00	*		*	
Clausena lansium	黄皮	Tree	Exotic, Commonly planted for fruit						*	
Cleistocalyx nervosum	水翁	Tree	Common				***))4)43	7 7-, <u>11</u> 1	
Clerodendranthus spicatus	腎茶,貓鬚草	Herb	Exotic, Common						*	

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Backshore Vegetation	Grassland	Secondary Woodland	Natural Watercourse	Ruderal Area	Developed / Village Area	Mangrove
galeriga a femiliarya 🦠										
Clerodendrum inerme	苦郎樹,假菜 莉	Shrub	Common		*					
Cocculus orbiculatus	木防己	Climber	Common			*				
Cratoxylum cochinchinense	黄牛木	Tree	Very common		1.11	**	*			
Crinum asiaticum var. sinicum	文殊蘭	Herb	Restricted		*	*				
Cuscuta chinensis	菟絲子	Parasitic herbaceous climber	Common			*	3 to 1			
Cyclea hypoglauca	粉葉輪環藤	Climber	Common			*				
Cyclosorus interruptus	間斷毛蕨	Herb	Common			**				
Cyclosorus parasiticus	華南毛蕨	Herb	Very common		4	ıķ.				
Cynodon dactylon	狗牙根	Herb	Very common		*				*	
Cyrtococcum patens	弓果黍	Herb	Very common		भःभः	*				
Dalbergia benthamii	兩廣黃檀	Woody climber	Common			**				
Dalbergia millettii	香港黃檀	Woody climber	Common			*				
Daphniphyllum calycinum	牛耳楓	Tree	Common		*	*	*	*		
Daphniphyllum oldhamii	交讓木	Tree	Common and the state of the sta			*	en e		:	
Dendrotrophe varians	寄生藤	Parasitic	Very common			*			4. s	ļā
Desmodium rlflorum	三點金	Herb	Very common		#					

Scientific Name	Chinese Common Name	Growth Form:	Status and Distribution in HK^	Backshore Vegetation*	Grassland	Secondary Woodland	Natural Watercourse	Ruderal Area	Developed / Village Area	Mangrove
Desmos chinensis	假鷹爪	Woody climber	Common	<u> </u>		**	垛			
Dicranopteris pedata	芒萁	Herb	Very common			**	7			
Dimocarpus longan	龍眼,桂圓	Tree	Exotic, Restricted	1		*			*	
Diospyros morrisiana	羅浮柿	Tree	Very common			*				
Diospyros vaccinioides	小果柿	Shrub	Very common, regarded as "Critically Endangered" accordign to IUCN Red List			米米	*			
Diploclisia - glaucescens	蒼白秤鈎風, 防己	Woody climber	Common		10 m	*	*	111		
Diplospora dubia	狗骨柴	Shrub or tree	Common	 		*	T	`	-	
Elaeagnus loureirii	雞柏紫藤,羅 氏胡頹子	Woody climber	Соттоп			#				
Elaeocarpus chinensis	中華杜英,野杜英	Tree	Common			*		-		
Elephantopus scaber	地膽草	Herb	Common	and fire som	**	*	*			1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1
Embelia laeta	酸滕子	Woody climber	Very common			*			ļ	ļ
Embelia vestita	密齒酸藤子	Woody climber	Соттоп			*				
Emilia sonchifolia	一點紅	Herb	Very common		*				*	•
Eurya nitida	細齒葉柃	Shrub	Very common			*				
Excoecaria agallocha	海漆	Tree	Common	**	*				2 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1	**
Ficus hirta	粗葉榕	Shrub	Common			*				-6-70
Ficus hispida	對葉榕	Tree	Very common			*	*	22		
Ficus microcarpa	細葉榕	Tree	Common						*	

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Backshore Vegetation	Grassland	Secondary Woodland	Natural Watercourse	Ruderal Area	Developed / Village Area	Мандгоче
					0 m m 1 m 1 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m					250
Ficus pumila	薜荔	Climber	Very common		 	*			*	
Ficus tinctoria subsp. Gibbosa	斜葉榕	Tree	Restricted		# 41 / 1 2 / 1 2 / 1	*				
Ficus variegata var. chlorocarpa	青果榕	Tree	Common			*			*	
Ficus variolosa	變葉榕	Shrub or tree	Very common			*				
Fimbristylis sp.	飄拂草屬	Herb	Restricted	1	*		20.00			-
Gahnia tristis	黑莎草	Herb	Very common			**				<u> </u>
Garcinia oblongifolia	黄牙果	Tree	Very common			**			. 1.	7
Glochidion eriocarpum	毛果算盤子	Tree	Very common			*	*	į		
Glochidion lanceolarium	艾膠算盤子,大 葉算盤子	Shrub	Common		*	*				
Glochidion zeylanicum	香港算盤子	Shrub	Common			***				
Gnetum luofuense	羅浮買麻藤	Clmber	Very common, regarded as "Near Threatened" accordign to IUCN Red List			*				
Gnetum parvifolium	小葉買麻藤	Clmber	Very common			*				
Gymnanthera oblonga	海島藤	Slender woody climber	Regarded as Very Rare in Xing et al. (2000), common in serveral districs in HK including Sai Kung, Tsing Yi, Yeun Long and Lantau Island (AFCD 2009)	**			水水本	2		**
Hedyotis acutangula	方骨草	Herb	Very common			*		·		
Heritiera littoralis	銀葉樹	Tree	Restricted	**					<u> </u>	**
Heterosmilax japonica	当 技 契	Climber	Common			*				
Hibiscus tiliaceus	黄槿	Tree	Common	***	al:	*	**			*

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Backshore Vegetation [#]	Grassland	Secondary Woodland	Natural Watercourse	Ruderal Area	Developed / Village Area	Mangrove
Homalium	天料木	ar i	Company of the second s	Santa - S						
cochinchinense	Batherin Spil	Shrub or tree	Common			**				
Ilex asprella	梅葉冬青	Shrub	Very common		*	*				
Ilex pubescens	毛冬青	Shrub	Very common			***				
Ipomoea cairica	五爪金龍	Herbaceous climber	Exotic, Very common			*				
Isachne globosa	柳葉箬	Herb	Very common						*	
Ixora chinensis	龍船花	Shrub	Restricted						*	-
Kalanchoe pinnata	落地生根	Herb	Exotic, Common			#	1		*	
Kandelia obovata	水筆仔	Tree	Very common	**						****
Lantana camara	馬纓丹	Shrub	Exotic, Very common	**	*	*	水	*	*	
Lemmaphyllum microphyllum	伏石蕨	Herb	Common			*				
Ligustrum sinense	山指甲	Shrub or small tree	Common			*	*			
Limonium sinense	補血草	Herb	Common	*	*					
Lindernia crustacea	母草	Herb	Restricted		*					
Lindsaea orbiculata	團葉鱗始蕨	Herb	Very common			*				
Liriope spicata	山麥冬,麥門 冬	Herb	Very common			*				
Litchi chinensis	荔枝	Tree	Exotic, Restricted						*	
Litsea cubeba	木薑子	Tree	Common			*				<u> </u>
Litsea glutinosa	潺稿樹	Tree	Very common			*	*		:	
Litsea rotundifolia /ar. oblongifolia	豺皮樟	Tree	Very common			*				Ž.

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Backshore Vegetation	Grassland	Secondary Woodland	Natural Watercourse	Ruderal Area	Developed / Village Area	Mangrove
Lophatherum gracile	淡竹葉	Herb	Very common			*			3 <u>k</u>	
Lygodium flexuosum	曲軸海金沙	Climber	Very common				*	<u> </u>		<u> </u>
Lygodium japonicum	海金沙	Climber	Very common	*		*	*	*	*	
Lygodium scandens	小葉海金沙	Climber	Common			*				
Macaranga tanarius var. tomentosa	血桐	Tree	Common			*			*	
Machilus chekiangensis	浙江潤楠	Tree	Very common		•	**				
Machilus velutina	絨毛潤楠	Tree	Common			**				
Maesa perlarius	鲫魚膽	Shrub	Common		*	*			*	-
Mallotus paniculatus	白楸	Tree	Very common		串	**				
Melastoma malabathricum	野牡丹	Shrub	Common		#	*				
Melastoma sanguineum	毛菍	Shrub	Common		i i	*				1.00
Melicope pteleifolia	三椏苦	Tree	Common			*				
Melodinus suaveolens	山橙	Woody climber	Common			*				
Mikania micrantha	薇甘菊	Herbaceous climber	Exotic, Very common		*			****	*	
Millettia nitida	亮葉雞血藤	Woody climber	Very common			*				
Miscanthus Ioridulus	五節芒	Herb	Common			*				
Mussaenda pubescens	玉葉金花	Climbing shrub	Very common			*	*			1 - Q. 1 - Q. 1 - Q.

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Backshore Vegetation	Grassland	Secondary Woodland	Natural Watercourse	Rùdèral Area	Developed / Village Area	Mangrove
Oxalis corniculata	酢漿草	Herb	Very common		*					
Paederia scandens	雞矢藤	Climber	Very common		*	*		<u> </u>		
Palhinhaea cernua	鋪地蜈蚣, 燈籠 草	Creeping herb	Very common			*				
Paliurus ramosissimus	馬甲子	Tree	Common	***	冰水	**	**			*
Pandanus austrosinensis	露兜草	Herb	Common				**			
Pandanus tectorius	露兜樹	Small tree	Very common		**	*				
Panicum brevifolium	短葉黍	Herb	Very common						*	
Paspalum conjugatum	兩耳草	Herb	Exotic, Common		**					
Paspalum distichum	雙穗雀稗	Herb	Common		*					
Pavetta hongkongensis	香港大沙葉	Shrub or small tree	Common, Protected under Cap. 96A			**				
Perilla frutescens	紫蘇	Herb	Restricted		*					
Phoenix loureiroi	刺葵	Shrub or small tree	Common		*					
Phyllanthus cochinchinensis	越南葉下珠	Shrub	Very common			#:				
Phyllanthus emblica	餘甘子,油甘子	Tree	Very common			*	*	a di assag		
Phyllodium pulchellum	排錢草	Shrub	Very common		*	4	*			-
Piper cathayanum	青蒟	Climber	Restricted			*				. :
Pluchea indica	闊苞菊・煙茜	Shrub	Common		*				i katifata Talahan	<u> </u>

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Backshore Vegetation	Grassland	Secondary Woodland	Natural Watercourse	Ruderal Area	Developed / Village Area	Mangrove
	And the state		 And the state of t							
Praxelis clematidea	假臭草	Herb	Exotic, Very common		*					
Psidium guajava	番石榴	Tree	Exotic, Common			*			*	
Psychotria asiatica	九節	Shrub	Very common	er line i	*	***	**		7	
Pteris semipinnata	半邊旗	Herb	Very common			*				
Pteris vittata	蜈蚣草	Herb	Very common			*	:			
Pueraria lobata	野葛	Climber	Very common			*	*			
Pycreus polystachyus	多穗扁莎	Herb	Very common		*					
Rhaphiolepis indica	車輪梅	Shrub or small tree	Very common			*				
Rhapis excelsa	棕竹	Shrub	Common			**		: .		
Rhodomyrtus tomentosa	桃金娘	Shrub	Very common		*	**				1
Rhus chinensis	鹽膚木	Tree	Common				*			
Rhus hypoleuca	白背鹽膚木	Tree	Common	**	*	**		AL IT	 	
Rhus succedanea	野漆樹	Тгее	Common			*	*			
Rosa laevigata	金櫻子	Climbing shrub	Common			*				l
Rourea microphylla	小葉紅葉藤, 紅葉藤	Woody climber	Common			*	*			
Rubus reflexus	蛇泡簕	Climbing shrub	Very common			*		·		
Ruellia coerulea	蘭花草	Herb	Exotic, Common						: :	
Sageretia thea	雀梅藤	Shrub	Common	**		*			*	
Sapium discolor	山烏桕	Tree	Very common		<u>Ar</u> a. Wali	*		<u> 1946 - </u>		1
Sapium sebiferum	鳥桕	Tree	Common		*	*		<u>21-461</u> 21-66		
Sarcandra glabra	草珊瑚	Subshrub	Common			*		de sego.		

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Backshore Vegetation	Grassland	Secondary Woodland	Natural Watercourse	Ruderal Area	Developed / Village Area	Mangrove
			kinakana	9.5 3.5				ω.		
Schefflera heptaphylla	鴨腳木	Tree	Very common			***	*	*		
Schizostachyum dumetorum	苗竹仔	Bamboo	Very common				**			
Scolopia chinensis	刺柊	Tree	Common			**	*			
Scolopia saeva	廣東刺柊	Tree	Common			本				
Scoparia dulcis	野甘草,冰糖草	Herb	Common			*				
Selaginella doederleinii	深綠卷柏	Herb	Common			#				
Selaginella uncinata	翠雲草	Herb	Common						*	
Senna occidentalis	望江南,野扁 豆	Shrub	Very common		*					
Smilax china	金剛藤	Climbing shrub	Very common			*				
Smilax glabra	土茯苓,光葉菝 葜	Climbing shrub	Very common			*			-	
Smilax lanceifolia var. opaca	暗色菝葜	Climbing shrub	Common			*	*			
Solanum capsicoides	牛茄子, 癲茄	Herb	Exotic, Regarded as Rare in Xing et al. (2000), widely established in HK in recent years			米		<u> </u>	*	
Spermacoce stricta	豐花草	Herb	Restricted						*	
Stachytarpheta jamaicensis	假馬鞭	Herb	Exotic, Common	,	*	9				
Stephania longa	千金藤	Climber	Common		*	25 Sec. 2		*	*	
Sterculia lanceolata	假蘋婆	Tree	Very common			*		<u> </u>		
Strophanthus divaricatus	羊角拗	Woody climber	Common		*	*	*			12 20*

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Backshore Vegetation	Grassland	Secondary Woodland	Natural Watercourse	Ruderal Area	Developed / Village Area	Mangrove
					1					
Strychnos angustiflora	牛眼馬錢	Woody climber	Common			*				
Styrax suberifolius	栓葉安息香, 紅皮	Tree	Common			iķ				
Suaeda australis	南方鹼蓬	Herb	Common Alexandra and the second and	*						
Symplocos cochinchinensis var. laurina	黃牛奶樹	Tree	Common		**	郑				
Symplocos crassifolia	厚葉山礬,厚葉 灰木	Tree	Common			#		-		
Symplocos lancifolia	光葉山礬	Tree	Common			*				
Syzygium buxifolium	赤楠	Shrub	Common	†		*				:
Syzygium hancei	韓氏蒲桃,紅 鱗蒲桃	Tree	Common			*	*	,		
Syzygium jambos	蒲桃	Tree	Exotic, Common	1.17	*	*	*			
Syzygium levinei	山蒲桃	Tree	Common			冰水				
Tetracera asiatica	錫葉藤	Woody climber	Very common			*	4:			
Toxocarpus wightianus	弓果藤	Slender woody climber	Very common			*				
Triumfetta rhomboidea	刺蒴麻	Subshrub	Common						*	
Tylophora ovata	娃兒藤	Slender woody climber	Common			*				
Urena lobata	肖梵天花	Subshrub	Common		*					
Urena procumbens	梵天花	Subshrub	Common		*	*		*		i i
Uvaria macrophylla	紫玉盤	Woody climber	Common			*		14 1411 14 14 14 14 14 14 14 14 14 14 14 14 14 1		and the second

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Backshore Vegetation [#]	Grassland	Secondary Woodland	Natural Watercourse	Ruderal Area	Developed / Village Area	Mangroye
Vernonia cinerea	夜香牛	Herb	Very common		*					
Viburnum odoratissimum	珊瑚樹	Tree	Very common		*	11:	***	竨		
Viola diffusa	要堇菜	Herb	Common				*			
Vitex rotundifolia	白背蔓荊	Shrub	Exotic, Common	**	#:	1,,,,,,,				
Wedelia trilobata	三裂葉蟛蜞菊	Herb	Exotic, Common			# d		*	*	
Wikstroemia indica	了哥王	Shrub	Common							
Wikstroemia nutans	細軸囏花	Shrub	Common			冰水				
Youngia japonica	黄鹌菜	Herb	Very common			*			-	
Zanthoxylum ailanthoides	椿葉花椒	Tree	Regarded as Rare in Xing et al. (2000), restricted to several locations in HK such as Chek Keng and Tai Long Sai Wan according to AFCD 2008		*				*	
Zanthoxylum avicennae	簕欓花椒	Tree	Соттол			*				
Zanthoxylum nitidum	兩面針	Climbing shrub	Very common			*		e la fac		
Zanthoxylum scandens	花椒簕	Climbing shrub	Common			*				
Cibotium barometz	金毛狗	Herb	Very common, Protected under Cap. 586, listed as Vulnerable (VU) in the China Red Data Book and is under State protection (category II) in China (Hu et al. 2003)			*				
Total	-		226	16	60	164	42	10	39	8

[^] Status follows Xing et al. (2000)

*Code for Abundance: **** Abundant, *** = Frequent, ** = Occasional, * = Scarce

Table A1-2. Flora species recorded within Ko Tong enclave

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK ^X	Backshore Vegetation	Dry Agricultural Land	Ko Tong Fung Shui Woodland	Ko Tong Ha Yeung Fung Shui Woodland	Mangrove	Marsh	Secondary Woodland	Natural Watercourse	Pond	Ruderal Area	Seasonally Wet Grassland	Shrubby Grassland	Developed / Village Area
Acacia confusa	台灣相思	Tree	Exotic, Common, often planted in plantation				41									*
Adiantum flabellulatum	扇葉鐵線蕨	Herb	Very common			*					†					
Adina pilulifera	水團花	Tree	Very common						l	†	*					†
Aegiceras corniculatum	桐花樹	Shrub	Common	**			 	***								
Alangium chinense	八角楓	Tree	Common			**	1			***	1		*			*
Alocasia macrorrhizos	海芋	Herb	Very common	2445		*			 		*		*			
Alpinia hainanensis	草豆蔻	Herb	Very common	17: 25.75	9 spg	*				1	**					
Alpinia stachyodes	密苞山薑	Herb	Common		e Bereite Jerografia						*				 	
Ampelopsis cantoniensis	廣東蛇葡萄	Climber	Very common							*						
Anisomeles indica	廣防風	Herb	Common							*			194		* .	
Annona squamosa	番荔枝	Tree	Common										100		*	1
Antidesma bunius	五月茶,五味子	Ттее	Common			*	*			**						*
Aporusa dioica	銀柴	Tree	Very common	*	4.2.15	***				**			*		*	*
Aquilaria sinensis	土沉香	Tree	Common, Protected under Cap. 586, listed as Near Threatened (NT) in the China Plant Red Data Book and is under State protection (Category II) in China (Hu et al. 2003), classified as Critically Endangered (CR) on the IUCN Red List			*				**						**
Archidendron lucidum	亮葉猴耳環	Tree	Common			*				*					1 11	

Scientific Name	Chinese Common Name	Growth Form	Status; and Distribution in: 田底外	Backshore Vegetation	Dry Agricultural Land	Ko Tong Fung Shui Woodland	Ko Tong Ha Yeung Fung Shui Woodland	Mangrove	Marsh	Secondary Woodland	Natural Watercourse	Poild	Ruderal Area	Seasonally Wet Grassland	Shrubby Grassland	Developed / Village Area
Archontophoenix alexandrae	假檳榔	Tree	Exotic, Commonly planted for greening													ak
Ardisia crenata	大羅傘	Shrub	Common			*	†		 	*	+	-	*	 	 	ļ
Ardisia quinquegona	羅傘	Small tree	Very common			*		_		*		-	**		 	\vdash
Atalantia buxifolia	酒餅簕	Shrub	Common						 	*	+	1	 			
Avicennia marina	白骨墺	Ттее	Common			1		**		3	 		-	-		+
Axonopus compressus	地毯草	Herb	Exotic, Common										***		***	****
Bauhinia glauca	粉葉羊蹄甲,羊蹄 甲藤	Woody climber	Very common			**	*			**						
Berchemia floribunda	勾兒茶	Climbling shrub	Common					<u> </u>	1	**	1	1/1:				-
Bischofia javanica	秋楓	Tree	Common							*	╁				 	
Blechnum orientale	烏毛蕨	Herb	Very common			**				*						-
Breynia fruticosa	黑面神	Shrub	Very common							*					ļ	
Bridelia tomentosa	土蜜樹	Tree	Very common		ļ					本	\vdash					
Brucea javanica	鴉膽子,苦參子	Shrub or tree	Common	*											非冰	
Bruguiera gymnorhiza	木欖	Tree	Restricted					**							-	
Byttneria aspera	刺果藤	Woody climber	Very common			***	***			***			*	i sais		
Callicarpa kochiana	枇杷葉紫珠	Shrub	Common							and the second						#
Cardiospermum halicacabum	倒地鈴	Climber	Restricted										e E Eng		*	1.6
Carica papaya	番木瓜	Tree	Exotic, Cultivated for food	19-24	*			144			e Pigna e 1 Parenes					
Castanopsis fissa	黧蒴錐	Tree	Common		<u>alan Afri</u> Bullah				 	*			April 1	<u>Jaje 181</u> 1906 – s		*

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Backshore Vegetation	Dry Agricultural Land	Ko Tong Fung Shui, Woodland	Ko Tong Ha Yeung Fung Shui Woodland	Mangrove	Marsh	Secondary Woodland	Natural Watercourse	Pond	Ruderal Area	Seasonally Wet Grassland	Shrubby Grassland	Developed / Village Area
Cerbera manghas	海芒果	Ттее	Соттоп	*				*								
Choerospondias axillaris	南酸棗	Tree	Common							床					-	
Cinnamomum camphora	樟	Tree	Common				**									*
Cinnamomum parthenoxylon	黃樟	Tree	Common			1×4=				**		水水	*			
Citrus maxima	柚	Tree	Exotic, Cultivated for food		*							1				
Citrus reticulata	桔	Small tree	Common		**								1		1	
Citrus sinensis	橙	Tree	Cultivated for food		*				1							
Clausena lansium	黄皮	Tree	Exotic, Commonly planted for fruit				*									
Cleistocalyx nervosum	水翁	Tree	Common	非非						*	水华					
Clerodendrum inerme	苦郎樹,假茉莉	Shrub	Common	*				*			1					
Cocculus orbiculatus	木防己	Climber	Common					11		*						
Colocasia esculenta	#	Herb	Cultivated						*							
Commelina diffusa	節節草	Herb	Common						**							
Cratoxylum cochinchinense	黄牛木	Tree	Very common			**	水			¥: ¾:			*		*	3 t ·
Cyclosorus interruptus	間斷毛蕨	Herb	Соттоп						**			*				
Cyclosorus parasiticus	華南毛蕨	Herb	Very common			*	Silva a			*					7	
Cyperus compressus	扁穗莎草	Herb	Very common						*	341						
Cyperus pilosus	毛軸莎草	Herb	Common	- \$					*		*			*		
Cyrtococcum patens	弓果黍	Herb	Very common						***	*		非非	*			
Dalbergia benthamii	兩廣黃檀	Woody climber	Common			*				**		\vdash				# %G



Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in	Backshore Vegetation	Dry Agricultural Land	Ko Tong Fung Shui Woodland	Ko Tong Ha Yeung Fung Shui Woodland	Mangrove	Marsh	Secondary Woodland	Natural Watercourse	Pond	Ruderal Area	Seasonally Wet Grassland	Shrubby Grassland	Developed / Village Area
Daphniphyllum calycinum	牛耳楓	Tree	Common						1	**						
Delonix regia	鳳凰木,金鳳	Tree	Exotic, Common			201	*				27, 59.4	-			+-	
Desmos chinensis	假鷹爪	Woody climber	Common	<u> </u>		*				北水	1.	 	*			_
Dicranopteris pedata	芒萁	Herb	Very common			*				*	1			3	\vdash	-
Dimocarpus longan	龍眼,桂圓	Tree	Exotic, Restricted			*	排油	-	 	*	-		*	_		
Dioscorea bulbifera	黄獨	Climber	Common			*										
Elaeagnus loureirii	雞柏紫藤,羅氏胡 頹子	Woody climber	Common			*	Established									
Embelia laeta	酸藤子	Woody climber	Very common						╫			<u> </u>	 			
Embelia vestita	密鹵酸藤子	Woody climber	Common		•		<u> </u>		-	*					-	
Eriocaulon truncatum	菲律賓穀精草	Herb	Common						*							
Eucalyptus robusta	大葉桉,大葉有加 利	Tree	Exotic, Common, often planted in plantation													*
Excoecaria agallocha	海漆	Tree	Common	非				***		 						
Ficus hispida	對葉榕	Tree	Very common								**					4
Ficus microcarpa	細葉榕	Tree	Соттол			本	jan en			2-1-12						*
Ficus subpisocarpa	筆管榕	Tree	Common	*			*	*								
Ficus variegata var. chlorocarpa	青果榕	Tree	Common							*						
Fimbristylis nutans	點頭飄拂草	Herb	Restricted						*		1125-4 1221 1221 1221		. 6 ₃	7. 74.	120.0	
imbristylis sieboldii	銹鱗飄拂草	Herb	Common						*		1894	1	200		200	<u> </u>
Floscopa scandens	聚花草	Herb	Common					14594.	**			*		ж		

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Backshore Vegetation	Dry Agricultural Land	Ko Tong Fung Shui Woodland	Ko Tong Ha Yeung Fung Shui Woodland	Mangrove:	Marsh	Secondary Woodland	Natural Watercourse	Pond	Ruderal Area	Seasonally Wet Grassland	Shrubby Grassland	Developed / Village Area
Fuirena umbellata	芙蘭草	Herb	Common						*							\vdash
Geissapis cristata	睫苞豆	Herb	Regarded as Rare in Xing et al. (2000), restricted to several locations including Deep Water Bay, Tai Mong Tsai, Sai Keng and Lantau Island according to AFCD 2008						**					***		
Glochidion eriocarpum	毛果算盤子	Тгее	Very common							**					#¢	*
Glochidion zeylanicum	香港算盤子	Shrub	Common				٠.		*	*	1	***	*	***	*	
Gnetum luofuense	羅浮買麻藤	Clmber	Very common, regarded as "Near Threatened" accordign to IUCN Red List			*	**									
Gymnanthera oblonga	海島藤	Slender woody climber	Regarded as Very Rare in Xing et al. (2000), common in serveral districs in HK including Sai Kung, Tsing Yi, Yeun Long and Lantau Island (AFCD 2009)					*								
Hedychium coronarium	臺 花	Herb	Exotic, Common		*											
Heterosmilax japonica	肖菝葜	Climber	Common			*				*						
Hibiscus tiliaceus	黄槿	Tree	Common	半半半				**			水水					
Hypericum japonicum	地耳草	Herb	Very common		- Januari				*			*		#		<u> </u>
Ilex asprella	梅葉冬青	Shrub	Very common							*						
Impatiens chinensis	華鳳仙	Herb	Common						**	1830 1870						
Ipomoea batatas	番薯	Herbaceous climber	Exotic, Cultivated		林林											
lpomoea triloba	三裂葉薯	Herbaceous climber	Exotic, Common						**							

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution, in. HK^	Backshore Vegetation	Dry Agricultural Land	Ko Tong Fung Shui Woodland	Ko Tong Ha Yeung Fung Shui Woodland	Mangrove	Marsh	Secondary Woodland	Natural Watercourse	Pond	Ruderal Area	Seasonally Wet Grassland	Shrubby Grassland	Developed / Village Area
Ischaemum barbatum	粗毛鴨嘴草	Herb	Very common						***			र्भःभः			 	<u> </u>
Ischaemum ciliare	細毛鴨嘴草	Herb	Very common						***							
Kalanchoe pinnata	落地生根	Herb	Exotic, Common	*	1							\vdash			\vdash	*
Kandelia obovata	水筆仔	Tree	Very common					***								
Kyllinga nemoralis	單穗水蜈蚣	Herb	Very common			1			*			\vdash			*	<u> </u>
Kyllinga polyphylla	香根水蜈蚣	Herb	Exotic, Common											*	 	<u> </u>
Lantana camara	馬纓丹	Shrub	Exotic, Very common	*	*					*	*		半串		***	*
Ligustrum sinense	山指甲	Shrub or small tree	Common			*				*						
Lindernia crustacea	母草	Herb	Restricted											*		
Lindernia oblonga	棱萼母草	Herb	Restricted			1			*	1				:		
Lindernia rotundifolia	迷你虎耳草	Herb	Restricted									-		*		
Lipocarpha chinensis	華湖瓜草	Herb	Restricted						*							
Liriope spicata	山麥冬,麥門冬	Herb	Very common				1				床			Nazasa		1
Litchi chinensis	荔枝	Tree	Exotic, Restricted			*	#							:		
Lithocarpus glaber	柯,石櫟	Tree	Common						 	**				-		
Litsea rotundifolia var. Oblongifolia	豺皮樟	Tree	Very common							*			·			
Lophatherum gracile	淡竹葉	Herb	Very common			*					1.34			1.4.5	101	
Lophostemon confertus	紅膠木	Tree	Exotic, Commonly planted							*		1	4.4			*
udwigia hyssopifolia	草龍	Herb	Common			400 A CAN		74.5	1.55				2.2	*		
ʻudwigia octovalvis	毛草龍	Herb	Common			Televiar Turn			*	1 1,2m m	10000					

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Backshore Vegetation	Dry Agricultural Land	Ko Tong Fung Shui Woodland	Ko Tong Ha Yeung Fung Shui Woodland	Mangrove	Marsh	Secondary Woodland	Natural Watercourse	Pond	Ruderal Area	Seasonally Wet Grassland	Shrubby Grassland	Developed / Village Area
Lygodium japonicum	海金沙	Climber	Very common		*	**				*		*			*	*
Lygodium scandens	小葉海金沙	Climber	Common						*	*		*				
Macaranga tanarius var. tomentosa	血桐	Tree	Common							*			*			*
Machilus chekiangensis	浙江潤楠	Tree	Very common		7.	**				***				·		*
Maesa perlarius	鯽魚膽	Shrub	Соттоп		*	**			*	**					1k	
Mallotus paniculatus	白楸	Tree	Very common				**			非水水	*	**				
Mangifera indica	杧果	Tree	Exotic, Commonly planted for fruit				*									
Melaleuca quinquenervia	白千層	Tree	Exotic, Commonly used for slope plantation													*
Melastoma malabathricum	野牡丹	Shrub	Common	*k					**	*		***		冰米	**	*
Melicope pteleifolia	三椏苦	Tree	Common							*						
Microcos nervosa	破布葉,布渣葉	Tree	Common	*		*				*			İ .			
Microstegium ciliatum	剛莠竹	Herb	Very common							**						
Mikania micrantha	薇甘菊	Herbaceous climber	Exotic, Very common		非非				**1:	非米	水水水		*	44	*	*
Mimosa pudica	含羞草	Herb	Exotic, Very common										*	*	***	
Morus alba	桑	Tree	Common	(de.)			30.44.4			*						
Murdannia nudiflora	裸花水竹葉	Herb	Common			4			*							
Musa x paradisiaca	大蕉	Giant herb	Exotic, Commonly cultivated		6.0					High services					*	
Mussaenda erosa	楠藤	Climbing shrub	Common	de d						*					5	- 1750 T
Neyraudia reynaudiana	類蘆	Herb	Common							*	1					

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Backshore Vegetation	Dry Agricultural Land	Ko Tong Fung Shui Woodland	Ko Tong Ha Yeung Fung Shui Woodland	Mangrove	Marsh	Secondary Woodland	Natural Watercourse	Pond	Ruderal Area	Seasonally Wet Grassland	Shrubby Grassland	Developed / Village Area
Oxalis corniculata	酢漿草	Herb	Very common										*			
Palhinhaea cernua	鋪地蜈蚣, 燈籠草	Creeping herb	Very common						*	2.74		*		-		
Paliurus ramosissimus	馬甲子	Tree	Common	***				**			-		<u> </u>		<u> </u>	
Pandanus austrosinensis	露兜草	Herb	Common			 					**					
Pandanus tectorius	露兜樹	Small tree	Very common	***	£ .			**				┢		<u> </u>		-
Panicum dichotomiflorum	水生黍	Herb	Common						***		\vdash	*			-	
Panicum maximum	大黍	Herb	Exotic, Very common		**	j									-	
Panicum repens	舖地黍/枯骨草	Herb	Very common				1		***		\vdash	14:		*		
Paspalum conjugatum	兩耳草	Herb	Exotic, Common			16								*	-	
Paspalum scrobiculatum var. orbiculare	圓果雀稗	Herb	Very common											漆津	1	
Pavetta hongkongensis	香港大沙葉	Shrub or small tree	Common, Protected under Cap. 96A			#	***			非非			*			
Philydrum lanuginosum	田蔥	Herb	Common						**			*	ļ —	**		
Phoenix loureiroi	刺葵	Shrub or small tree	Common							*						
Phyllanthus emblica	餘甘子,油甘子	Тгее	Very common	*						坤						als:
Phyllodium pulchellum	排錢草	Shrub	Very common						ep. d				-		*	
Piper cathayanum	青蒟	Climber	Restricted		-	*							*			
Piper hancei	山蒟	Climber	Very common		<u>-i,</u>					1,441 1,441		1	*			
Plumeria rubra	雞蛋花	Tree	Exotic, Commonly planted for greening													*
Polygonum barbatum	毛蓼	Herb	Common						*							
Polygonum chinense	火炭母	Herb	Very common	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				1 2 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		4.			*			

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Backshore Vegetation	Dry Agricultural Land	Ko Tong Fung Shui Woodland	Ko Tong Ha Yeung Fung Shui Woodland	Mangrove	Marsh	Secondary Woodland	Natural Watercourse	Pond	Ruderal Area	Seasonally Wet Grassland	Shrubby Grassland	Developed / Village Area
Polygonum glabrum	光蓼	Herb	Restricted						**					 		
Polygonum pubescens	短毛蓼	Herb	Common						*					**		
Praxelis clematidea	假臭草	Herb	Exotic, Very common											*		<u> </u>
Prunus persica	桃	Tree	Exotic, Commonly planted for fruit		水米											
Psychotria asiatica	九節	Shrub	Very common	*		***	1.7			***			*		*	4:
Pteris biaurita	狹眼鳳尾蕨	Herb	Common			#					1			T		
Pteris semipinnata	半邊旗	Herb	Very common			*				*			*			
Pueraria lobata	野葛	Climber	Very common			*				1:	*					
Rhodomyrtus tomentosa	桃金娘	Shrub	Very common						*			***				
Rhus hypoleuca	白背鹽膚木	Тгее	Common							*			**			ļ
Rourea microphylla	小葉紅葉藤,紅葉 藤	Woody climber	Common							*						
Sacciolepis indica	赛穎草	Herb	Very common						*							
Sageretia thea	雀梅藤	Shrub	Common							**	1		*			
Sapium discolor	山烏桕	Tree	Very common						 	**						
Sapium sebiferum	烏桕	Тгее	Common							1:					***	가 :
Sarcandra glabra	草珊瑚	Subshrub	Common	2/9		*				*						
Schefflera heptaphylla	鴨腳木	Tree	Very common			**	*	-	_	**						*
Schima superba	木荷	Tree	Common			Federal C				半米						*
Scolopia chinensis	刺柊	Tree	Common	**										4 .6		
Scolopia saeva	廣東刺柊	Тгее	Common			and an it is				*		 			12	

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK *	Backshore Vegetation	Dry Agricultural Land	Ko Tong Fung Shui Woodland	Ko Tong Ha Yeung Fung Shui Woodland	Mangrove	Marsh	Secondary Woodland	Natural Watercourse	Pond	Ruderal Area	Seasonally Wet Grassland	Shrubby Grassland	Developed / Village Area
Scoparia dulcis	冰塘草	Herb	Common					ļ		1			*	<u> </u>	*	-
Senna tora	決明,假綠豆	Shrub	Exotic, Common			·				1	I^-	<u> </u>			***	
Solanum erianthum	假煙葉樹	Shrub	Exotic, Common		94.7	1980.4		1, 4		# "	rft .		549			
Solanum torvum	水茄	Shrub	Exotic, Common	and the									*		**	
Spermacoce stricta	豐花草	Herb	Restricted		*	1		-								
Sphaerocaryum malaccense	稃藎	Herb	Common						**			非津				
Spilanthes paniculata	金鈕扣	Herb	Common						*		T		 	串	北北	
Sterculia lanceolata	假蘋婆	Tree	Very common			**	*		-	***	1.0	:			 	水
Strophanthus divaricatus	羊角拗	Woody climber	Common							*					1	
Strychnos angustiflora	牛眼馬錢	Woody climber	Common	#							Section 1				1	
Symplocos cochinchinensis var. laurina	黄牛奶樹	Tree	Common							*						
Syzygium hancei	韓氏蒲桃,紅鱗蒲 桃	Tree	Common							*						
Syzygium jambos	蒲桃	Tree	Exotic, Common	*		*	li,			*						*
Syzygium levinei	山蒲桃	Тгее	Common	•			*			承	 					
Tadehagi triquetrum	葫蘆茶	Shrub	Very common		i i		1 13(2)			*						
Tetracera asiatica	錫葉藤	Woody climber	Very common			#				*	1.00					
Tithonia diversifolia	腫柄菊,假向日葵	Herb	Exotic, Common		**						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
Toxocarpus wightianus	弓果藤	Slender woody climber	Very common							*						



Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Backshore Vegetation	Dry Agricultural Land	Ko Tong Fung Shui Woodland	Ko Tong Ha Yeung Fung Shui Woodland	Mangrove	Warsh	Secondary Woodland	Natural Watercourse	Pond	Ruderal Area	Seasonally Wet Grassland	Shrubby Grassland	Developed / Village Area
Tylophora ovata	娃兒藤	Slender woody climber	Common										*			*
Urena lobata	肖梵天花	Subshrub	Common										***		***	
Urena procumbens	梵天花	Subshrub	Common				†						*		*	*
Utricularia bifida	挖耳草	Small herb	Common			31.000			*			*				
Uvaria macrophylla	紫玉盤	Woody climber	Common			*				**		1	*			
Vernonia cinerea	夜香牛	Herb	Very common						ļ .				*		*	*
Viburnum odoratissimum	珊瑚樹	Tree	Very common	**		**				***	排排					
Vitex quinata	山牡荊	Tree	Common						\vdash	*						
Wedelia biflora	雙頭菊, 孿花蟛蜞菊	Herb	Common	*						e de la company						
Xyris pauciflora	蔥草	Herb	Restricted						*							
Zanthoxylum avicennae	簕欓花椒	Tree	Common				*	-		*	1					
Zanthoxylum nitidum	兩面針	Climbing shrub	Very common			*				*			*			
Total		- AND THE	196	23	14	46	18	12	40	86	16	19	34	19	27	34

[^] Status follows Xing et al. (2000)

*Code for Abundance: ****= Abundant, *** = Frequent, ** = Occasional, * = Scarce

Table A1-3. Flora species recorded within Nam Shan Tung enclave

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK?	Fung Shui Woodland	Secondary Woodland	Natural Watercourse	Developed / Village Area
Acacia confusa	台灣相思	Tree	Exotic, Common, often planted in plantation		*	10	
Acorus gramineus	石菖蒲	Herb	Very common			乘xx	
Adiantum flabellulatum	扇葉鐵線蕨	Herb	Very common	*	*		
Adina pilulifera	水團花 .	Tree	Very common	*	*	**	
Alangium chinense	八角楓	Tree	Common	*	4 92.		*
Alocasia macrorrhizos	海芋	Herb	Very common	*	*	*	
Alpinia hainanensis	草豆蔻	Herb	Very common	*	 	*	
Anisomeles indica	廣防風	Herb	Common				*
Aporusa dioica	銀柴	Tree	Very common	***	***		
Aquilaria sinensis	土沉香	Tree	Common, Protected under Cap. 586, listed as Near Threatened (NT) in the China Plant Red Data Book and is under State protection (Category II) in China (Hu et al. 2003), classified as Critically Endangered (CR) on the IUCN Red List	*			
Archidendron clypearia	猴耳環	Tree	Common	*			
Ardisia crenata	大羅傘	Shrub	Common		**		
Ardisia lindleyana	山血丹	Shrub	Common		*	 	
Ardisia quinquegona	羅傘	Small tree	Very common	*	*	** .	
Bambosa sp.	竹屬	Bambos	Common	*			
Blechnum orientale	烏毛蕨	Herb	Very common	**	**	*	
Boehmeria nivea	苧麻	Shrub	Restricted		*		
Bougainvillea spectabilis	簕杜鵑	Climbing shrub	Exotic, Common				**
Breynia fruticosa	黑面神	Shrub	Very common		*		*
Bridelia tomentosa	土蜜樹	Tree Angel Angel	Very common	*	4 (24)		3 3
Brucea javanica	鴉膽子	Shrub or tree	Common	1 - 14 - 15 - 15 - 15 - 15 - 15 - 15 - 1	*		1 22

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Fung Shui Woodland*	Secondary Woodland	Natural Watercourse	Developed / Village Area
Byttneria aspera	刺果藤	Woody climber	Very common	*	**		
Carex chinensis	中華臺草	Herb	Common			*	
Centella asiatica	崩大碗	Herb	Very common	*			
Centotheca lappacea	假淡竹葉	Herb	Common		*		1
Cibotium barometz	金毛狗	Herb	Very common, Protected under Cap. 586, listed as Vulnerable (VU) in the China Red Data Book and is under State protection (category II) in China (Hu et al. 2003)		*	4:	
Cinnamomum parthenoxylon	黄樟	Tree	Common	#	**		
Citrus reticulata	桔	Small tree	Common				*
Clausena lansium	黄皮	Tree	Exotic, Commonly planted for fruit	*	-		
Cleistocalyx nervosum	水翁	Tree	Common		**	**	†
Cratoxylum cochinchinense	黄牛木	Tree	Very common	***	***		
Cuphea platycentra	雪茄花	Herb	Exotic, Commonly planted			1	*
Cyclosorus parasiticus	華南毛蕨	Herb	Very common	*	**	**	*
Dalbergia benthamii	兩廣黃檀	Woody climber	Common	**			
Daphniphyllum calycinum	牛耳楓	Tree	Common	*	**		
Desmos chinensis	假鷹爪	Woody climber	Common	#	*		
Dicranopteris pedata	芒萁	Herb	Very common	*	**	-	
Dimocarpus longan	龍眼,桂圓	Tree	Exotic, Restricted	*	*		*
Elaeagnus loureirii	雞柏紫藤,羅 氏胡頹子	Woody climber	Common		*		
Elephantopus scaber	地膽草	Herb	Common	*	,		
Erythrina varięgata	刺桐	Tree	Exotic, Commonly planted		and the		冰
Eurya nitida	細齒葉柃	Shrub	Very common	*			150 202 202

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Fung Shui Woodland	Secondary Woodland	Natural Watercourse	Developed / Village Area
Ficus hispida	對葉榕	Tree	Very common				**
Ficus pumila	薜荔	Climber	Very common	*		1	1
Ficus variegata yar. chlorocarpa	青果榕	Tree	Common	#			*
Glochidion eriocarpum	毛果算盤子	Tree	Very common	*	**		1
Gnetum luofuense	羅浮買麻藤	CImber	Very common, regarded as "Near Threatened" accordign to IUCN Red List	*	*		
Helicteres angustifolia	山芝麻	Subshrub	Very common		*		+
Ilex asprella	梅葉冬青	Shrub	Very common	*	*		
Ilex cinerea	灰冬青	Tree	Common	*			
Kalanchoe pinnata	落地生根	Herb	Exotic, Common				*
Lantana camara	馬纓丹	Shrub	Exotic, Very common				*
Lepidagathis incurva	鱗花草	Herb	Common		*	1	1
Litsea rotundifolia var. oblongifolia	豺皮樟	Tree	Very common	*			
Lophatherum gracile	淡竹葉	Herb	Very common		*		
Lygodium japonicum	海金沙	Climber	Very common	*	*		
Machilus chekiangensis	浙江潤楠	Tree	Very common	*	**	1:	1
Maesa perlarius	鯽魚膽	Shrub	Common	*			
Mallotus paniculatus	白楸	Tree	Very common	***			**
Mangifera indica	杧果	Tree	Exotic, Commonly planted for fruit	*			1
Melastoma malabathricum	野牡丹	Shrub	Common		*		1
Melicope pteleifolia	三椏苦	Tree	Common		*		
Millettia dielsiana	山雞血藤	Woody climber	Very common		*		
Paederia scandens	雞矢藤	Climber	Very common	3.000 p. 200	1 44. B 1 4 4. B	<u> </u>	sk

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Fung Shui Woodland*	Secondary Woodland	Natural Watercourse	Developed / Village Area
Palhinhaea cernua	鋪地蜈蚣,燈 籠草	Creeping herb	Very common		*		
Pandanus austrosinensis	露兜草	Herb	Common	rji .		*	
Panicum brevifolium	短葉黍	Herb	Very common			*	
Phoenix loureiroi	刺葵	Shrub or small tree	Common		*		
Pronephrium simplex	單葉新月蕨	Herb	Very common	冰			1
Psidium guajava	番石榴	Tree	Exotic, Common				*
Psychotria asiatica	九節	Shrub	Very common	***	***	##	:
Pteris biaurita	狹眼鳳尾蕨	Herb	Common	*			
Pteris semipinnata	半邊旗	Herb	Very common	*	*	*	
Pyrrosia adnascens	貼生石韋	Herb	Common	*			
Rhodomyrtus tomentosa	桃金娘	Shrub	Very common	*			
Rubus leucanthus	白花懸鉤子	Climbing shrub	Common		*		
Rubus ŗeflexus	蛇泡簕	Climbing shrub	Very common	*	*	*	
Sageretia thea	雀梅藤	Shrub	Common	*	*		
Sapium discolor	山烏桕	Tree	Very common	*	*		
Sapium sebiferum	鳥桕	Tree	Common	*	*		
Sarcandra glabra	草珊瑚	Subshrub	Common	*	*		
Saurauia tristyla	水東哥	Tree	Common	*	*	**	
Schefflera heptaphylla	鴨腳木	Tree	Very common	***	冰井水		
Scolopia saeva	廣東刺柊	Tree	Common		*	1	
Selaginella doederleinii	深綠卷柏	Herb	Common		*	4	
Smilax china	金剛藤	Climbing shrub	Very common	#	inae. Jai		

Ecological and Conservation Importance of Six Sal Kung Country Park Enclaves

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Fung Shut Woodland*	Secondary Woodland	Natural Watercourse	Developed / Village Area
Smilax glabra	土茯苓,光葉 菝葜	Climbing shrub	Very common	*	*	CP .	B 3.
Sphenomeris chinensis	烏韭	Herb	Common		*		
Sterculia lanceolata	假蘋婆	Tree	Very common	#	**	:4:	
Syzygium hancei	韓氏蒲桃・紅 鮮蒲桃	Tree	Common	*	*		
Syzygium levinei	山蒲桃	Tree	Common	*	*		
Tetracera asiatica	錫葉藤	Woody climber	Very common	*	*		
Urena lobata	肖梵天花	Subshrub	Common		*		
Uvaria macrophylla	紫玉盤	Woody climber	Common		*		
Viburnum odoratissimum	珊瑚樹	Tree	Very common	*	**		
Wikstroemia nutans	細軸蕘花	Shrub	Common	4	*		
Zanthoxylum avicennae	簕欓花椒	Tree	Common		*		*
Total			07	58	1	17	18

[^] Status follows Xing et al. (2000)
Code for Abundance: ****= Abundant, *** = Frequent, ** = Occasional, * = Scarce

Table A1-4. Flora species recorded within Pak Tam Au enclave

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Fung Shui Woodland*	Channelized Watercourse	Developed / Village Area	Grassland	Marsh	Secondary Woodland	Natural Watercourse	Plantation	Pond	Seasonally Wet Grassland	Shrubby Grassland	Waste Ground
Abrus mollis	毛相思子	Woody climber	Restricted						*						
Acacia confusa	台灣相思	Tree	Exotic, Common, often planted in plantation			**	14:		*		***			*	
Acorus gramineus	石菖蒲	Herb	Very common		**			 							T
Adiantum flabellulatum	扇葉鐵線蕨	Herb	Very common	*											
Adina pilulifera	水團花	Tree, 5m	Very common		**									Ta at	*
Adinandra millettii	黄瑞木	Tree	Common						*						
Agave americana	龍舌蘭	Perennial Herb	Exotic, Cultivated in HK (AFCD 2011)				**								
Ageratum conyzoides	藿香煎,勝紅 薊	Herb	Exotic, Exotic (pantropical herb of American origin), very common		*	:k*	*				*				**
Alangiun chinense	八角楓	Tree	Соттоп	非非非			*		***		**				\vdash
Alocasia macrorrhizos	海芋	Herb	Very common	*			*		*						
Alternanthera sessilis	蓮子草	Herb	Common				*								
Ampelopsis cantoniensis	廣東蛇葡萄	Climber	Very common	**					*						
Aporusa dioica	銀柴	Tree	Very common	非米米					***					1.1	
Aquilaria sinensis	土沉香	Tree	Common, Protected under Cap. 586, listed as Near Threatened (NT) in the China Plant Red Data Book and is under State protection (Category II) in China (Hu et al. 2003), classified as Critically Endangered (CR) on the IUCN Red List	*					*		*				
Archidendron clypearia	猴耳環	Tree	Common						*						
Archidendron lucidum	亮葉猴耳環	Тгее	Common							*			Militaria. Militaria		

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Ardisia crenata	大羅傘	Shrub									1. 7.45		er.		Ē
Ardisia quinquegona	羅傘		Common	**	·					*					
Arundinella setosa		Small tree	Very common	*					**	· · .	<u> </u>	<u> </u>	<u> </u>		
Arunainella selosa	刺芒野古草	Herb	Very common		:		*							,	
Axonopus compressus	地毯草	Herb	Exotic, Common				***			- ·					
Baeckea frutescens	崗松	Shrub	Very common				*		 					*	**
Bambosa sp.	竹屬	Bambos	Common						妆			<u> </u>			_
Basella alba	落葵,潺菜	Herbaceous climber	Exotic, Restricted						*						
Bauhinia variegata	宮粉羊蹄甲	Tree	Exotic, Common						*					-	
Bischofia javanica	秋楓	Tree	Common						非非本		*			*	
Blechnum orientale	烏毛蕨	Herb	Very common		*		*		**	**	*				
Bougainvillea spectabilis	簕杜鵑	Climbing shrub	Exotic, Common	**								e de la			
Breynia fruticosa	黑面神	Shrub	Very common	 			*		*		*			*	ajs
Bridelia tomentosa	土蛮樹	Tree	Very common	*	14		*		**		*			*	
Cajanus scarabaeoides	蔓草蟲豆	Climber	Common	jywa.			*		İ						
Callicarpa formosana	杜虹花	Shrub	Common				%		*						
Callicarpa kochiana	枇杷葉紫珠	Shrub	Common			:			*		*				
Casuarina equisetifolia	木麻黃,牛尾 松	Tree	Exotic, often planted in plantation and along roadside, apparently semi-naturalized in the nature								**				
Cayratia corniculata	角花烏蘞莓	Climber	Very common					1	*	**************************************	-				
Centella asiatica	崩大碗	Herb	Very common	ryst št.		*	*		*		*	-		*	1,50,0
Centotheca lappacea	假淡竹葉	Herb	Common						*	1,545,534	*	1		i de la composición della comp	

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Fung Shui Woodland	Channelized Watercourse	Developed/ Village Area	Grassland	Marsh	Secondary Woodland	Natural Watercourse	Plantation	Pond	Seasonally \ Grassland	Shrubby Grassland	Waste Ground
						7.2				ľ			Wet		E E
Chrysopogon aciculatus	竹節草,假雀 麥	Herb	Very common				***	卡本						***	1
Cinnamomum camphora	樟	Tree	Common			*	*		**		-				1
Cinnamomum parthenoxylon	黄樟	Tree	Common	***					*						
Cleistocalyx nervosum	水翁	Tree	Common	**	非津				***		**	**			1
Colocasia esculenta	芳	Herb	Cultivated		*							*			\vdash
Commelina diffusa	節節草	Herb	Common		本本		1		*	** .	 	***			1
Cratoxylum cochinchinense	黄牛木	Tree	Very common				1 k				并				
Cyclobalanopsis myrsinifolia	小葉青岡	Tree	Соттол						*						
Cyclosorus interruptus	間斷毛蕨	Herb	Common									***			
Cyclosorus parasiticus	華南毛蕨	Herb	Very common	*	**		坩		#	**	: t	**		*	\vdash
Cynodon dactylon	狗牙根	Негь	Very common				*								
Cyperus difformis	異型莎草	Herb	Very common												*
Cyperus iria	碎米莎草	Herb	Common				*	牛			<u> </u>				\vdash
Cyperus sp.	莎草屬	Herb	Common					*							\vdash
Cyrtococcum patens	弓果黍	Herb	Very common	半年											\vdash
Daphniphyllum calycinum	牛耳楓	Tree	Common	*			*		***	4:	**				7
Desmodium gangeticum	大葉山螞蝗	Subshrub	Common				*		Жe						
Desmodium triflorum	三點金	Herb	Very common			<u>-4. jad</u> Viikasi	**	*	m. e	As C			非非常	rk .	_
Desmos chinensis .		Woody climber	Common				*		**					ada (bila Mariana)	

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Desmos chinensis	假鷹爪	Woody climber	Common	**											
Dicranopteris pedata	芒萁	Herb	Very common	*	*		非非	<u> </u>	**		半半			非本非非	**
Dimocarpus longan	龍眼,桂圓	Tree	Exotic, Restricted	*					*						\vdash
Dioscorea bulbifera	黄獨	Climber	Common						*		 	 			
Dioscorea cirrhosa	薯茛	Climber	Common		*							\vdash		<u> </u>	+-
Diospyros morrisiana	羅浮柿	Tree	Very common	*											-
Eclipta prostrata	館腸	Herb	Common				*	**				\vdash	*	 	<u> </u>
Eichhornia crassipes	鳳眼藍,大水 萍	Floating herb	Exotic, Common									水水水			
Elaeagnus loureirii	雞柏紫藤,羅 氏胡頹子	Woody climber	Common	*					*	Ballett Ja					
Elaeocarpus decipiens	杜英	Tree	Common	*										<u> </u>	
Eleocharis spiralis	螺旋鳞荸薺	Herb	Regarded as Rare in Xing et al. (2000), common in several districts in HK including Yuen Long, Mai Po and Tai Ho (AFCD 2012)					北本				**			
Embelia laeta	酸藤子	Woody climber	Very common	*			**		1						
Embelia ribes	白花酸藤子	Woody climber	Common						*						
Emilia sonchifolia	一點紅	Herb	Very common				*								
Eragrostis atrovirens	鼠婦草	Herb	Common				*								
Eragrostis tenella	鲫魚草,南方 知風草	Herb	Very common									**			
Eriocaulon sexangulare	華南穀精草	Herb	Very common		*			***					*		12.4 12.4 13.5
Eupatorium chinense	華澤蘭・蘭草	Herb	Restricted				*					*	5-4 P-0		

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Eurya nitida	細齒葉柃	Shrub	Very common		*										1
Ficus hirta	粗葉榕	Shrub	Common						*	*					
Ficus Hispida	對葉榕	Тгее	Very common	*			*		*	*	*				+
Ficus microcarpa	細葉榕	Tree	Common			**	#		*		***			14:	
Ficus pumila	薜荔	Climber	Very common							**					
Ficus subpisocarpa	筆管榕	Tree	Common						*	1	I^{-}				
Ficus variegata var. chlorocarpa	青果榕	Tree	Common	*					*						*
Ficus variolosa	變葉榕	Shrub or tree, 5m (10m)	Very common		*		- 1								
Fimbristylis aestivalis	夏飄拂草	Herb	Restricted		*										
Fimbristylis sieboldii	銹鳞飄拂草	Herb	Common					*					*		
Geissapis cristata	睫苞豆	Herb	Regarded as Rare in Xing et al. (2000), restricted to several locations including Deep Water Bay, Tai Mong Tsai, Sai Keng and Lantau Island according to AFCD 2008				**	排妝					**		
Glochidion eriocarpum	毛果算盤子	Tree	Very common							1				*	
Glochidion hirsutum	厚葉算盤子	Tree	Common											本本本	\vdash
Glochidion lanceolarium	艾膠算盤子, 大葉算盤子	Shrub	Common				::		****	*	米非			***	
Glochidion zeylanicum	香港算盤子	Shrub	Common	*#											
Hedyotis auricularia	耳草	Herb	Common			145.		**		5.	-		*		\vdash
Hedyotis diffusa	白花蛇舌草	Herb	Very common			*	*		*					i a	
llex pubescens	毛冬青	Shrub	Very common				est existe Sec		* 6			187		90 A.	

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Imperata cylindrica var. major	絲茅	Herb	Very common				***						2		
Ipomoea cairica	五爪金龍	Herbaceous climber	Exotic, Very common	*	**	**			#			-			\vdash
Ischaemum barbatum	粗毛鴨嘴草	Herb	Very common			1	***					+			+
Jatropha integerrima	全缘葉麻瘋	Shrub	Exotic, Cultivated		<u> </u>		*	-	* # #	1 2	-	+-	<u>.</u>		
Kyllinga brevifolia	短葉水蜈蚣	Herb	Common	1		1 1 1	*	*		in the second	-	\vdash	**		_
Kyllinga nemoralis	單穗水蜈蚣	Herb	Very common	*		*				+	*			-	┼
Lantana camara	馬纓丹	Shrub	Exotic, Very common	*		**	*		*			-		**	
Leersia hexandra	李氏禾	Herb	Common		*	 		-		1				-	-
Leucaena leucocephala	銀合歡	Tree	Exotic, Common		*		*					***			
Lindernia antipoda	泥花草	Herb	Common				:4:			-	-	11:			
Lindernia crustacea	母草	Herb	Restricted				*			-	\vdash	-		*	_
Liparis ferruginea	銹色羊耳蒜	Herb	Regarded as Scarce and Restricted, and is a locally endangered species(EN) in HK (Barretto et al. 2011)					**		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
Litchi chinensis	荔枝	Tree	Exotic, Restricted	*					31 31 31 31	1 1 1 1 1		-			
Litsea cubeba	木薑子	Tree	Common	*								-			-
Litsea glutinosa	瀑稿樹	Tree	Very common	*			20000000					 	134	*	-
Litsea monopetala	假柿木薑子	Tree	Restricted					1	*						
Litsea rotundifolia var. oblongifolia	豺皮樟	Tree	Very common	*									:	未非	
Lophatherum gracile	淡竹葉	Herb	Very common		1		*		*	1 1 1 1	*				
Ludwigia adscendens	水龍	Herb	Common		<u>Anna ann</u> Anna an		1450 1450	27.	Tage da 1991 au	1 1 27	13.5	**			
udwigia perennis	細花丁香蓼		Restricted	1907.64 1 48	145.20			lika d Jakob			12 (A) 14 11 (12)	*	1385.36 3 50		1 14

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Fung Shui Woodland	Channelized Watercourse	Developed / Village Area	Grassland	Marsh	Secondary Woodland	Natural Watercourse	Plantation	Pond	Seasonally Wet Grassland	Shrubby Grassland	Waste Ground
Lygodium flexuosum	曲軸海金沙	Climber	Very common		*				*	*	-				1
Lygodium japonicum	海金沙	Climber	Very common				**		*		-	\dagger	<u> </u>	**	-
Lygodium scandens	小葉海金沙	Climber	Common						*		 	┪			-
Machilus breviflora	短序潤楠	Tree	Very common	*					<u> </u>						†
Machilus chekiangensis	浙江潤楠	Tree	Very common	**	*				***	**	3:			*	
Machilus pauhoi	刨花潤楠	Tree	Regarded as Very Rare in Xing et al. (2000), common in several districts in HK including Tai Mo Shan, Shing Mun and Tai Po Kau (Personal observation)						*						
Macroptilium lathyroides	大翼豆	Creeping herb	Exotic, Common				*								
Macrothelypteris torresiana	普通針毛蕨	Herb	Very common											*	
Maesa perlarius	鲫魚膽	Shrub	Common	非非			*		***		**			**	\vdash
Mallotus paniculatus	白楸	Tree	Very common	非 非					***		*				*
Melastoma malabathricum	野牡丹	Shrub	Common		*		本水水		*	*	**	*		***	**
Melastoma sanguineum	毛菍	Shrub	Common				非半		**					**	
Microstegium ciliatum	剛莠竹	Herb	Very common		*										
Mikania micrantha	薇甘菊	Herbaceous climber	Exotic, Very common	*					*					***	
Mimosa pudica	含羞草	Herb	Exotic, Very common				**								
Miscanthus sinensis	芒	Herb	Very common				*						4		
Mucuna birdwoodiana	白花油麻藤, 勃氏黧豆	Woody climber	Common	**											

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Mussaenda pubescens	玉葉金花	Climbing shrub	Very common						*						
Nelumbo nucifera	荷花	Aquatic herb	Exotic, Commonly planted			1	†				+	**	ļ	†	+
Osbeckia chinensis	金錦香,天香爐	Herb	Very common												*
Oxalis corniculata	酢漿草	Herb	Very common	1		*	#	*	Zjer jerdan		*			 	-
Paederia scandens	雞矢藤	Climber	Very common						*		*	<u> </u>			*
Palhinhaea cernua	鋪地蜈蚣, 燈 籠草	Creeping herb	Very common				**		*		*				*
Pandanus tectorius	露兜樹	Small tree	Very common		*	<u> </u>			:		╁──	ľ			+
Panicum brevifolium	短葉黍	Herb	Very common	1			串			. 10 .000	+	sje			-
Panicum dichotomiflorum	水生黍	Herb	Common		E Tegral		*	*							
Panicum repens	舖地黍,枯骨 草	Herb	Very common					**					**		
Paspalum conjugatum	兩耳草	Herb	Exotic, Common			2 2 2 2 2 2 2	***		*					***	+
Paspalum distichum	雙穗雀稗	Herb	Common					*		 	-	-		<u> </u>	-
Paspalum scrobiculatum vax. orbiculare	圓果雀稗	Herb	Very common		*			**					*		
Pavetta hongkongensis	香港大沙葉	Shrub or small tree	Common, Protected under Cap. 96A						*						
Philydrum Ianuginosum	田恵	Herb	Common					***				**	* *		
Phyllanthus emblica	餘甘子,油甘子	Tree	Very common						#		*			*	
Plantago major	車前草	Herb	Very common		10 mm (10 mm)		*		Andrew Andrew	igeneral Iga Ah					_

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Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Fung Shui Woodland [#]	Channelized Watercourse	Developed / Village Area	Grassland:	Marsh	Secondary Woodland	Natural Watercourse	Plantation	Pond	Seasonally Wet Grassland	Shrubby Grassland	Waste Ground
Polyspora axillaris	大頭茶	Tree	Very common				*	100	**		*			*	
Pronephrium simplex	單葉新月蕨	Herb	Very common	-	*					*					-
Psidium guajava	番石榴	Тгее	Exotic, Common	*		**	*		*		*			%	\vdash
Psychotria asiatica	九節	Shrub	Very common	***		**	*		***	**	水米				\vdash
Pteris ensiformis	劍葉鳳尾蕨, 井邊茜	Herb	Common				*								
Pteris multifida	井欄邊草	Herb	Very common						#	*					-
Pteris semipinnata	半邊旗	Herb	Very common	*					#		<u> </u>	-		-	-
Pterocarpus indicus	紫檀,牛血樹	Tree	Exotic, Common	2					*		-	-		-	_
Pueraria lobata	野葛	Climber	Very common	**					*		 	\vdash			\vdash
Pycreus polystachyus	多穗扁莎	Herb	Very common				*	*			ļ	*	**	 	-
Rhaphiolepis indica	車輪梅	Shrub or small tree	Very common				*		*					area a	
Rhodomyrtus tomentosa	桃金娘	Shrub	Very common	*			非苯		*		**			***	水本
Rhus chinensis	鹽膚木	Tree	Common				*		*		*			米	*
Rhus succedanea	野漆樹	Tree	Common	*			*		**					*	
Rosa laevigata	金櫻子	Climbing shrub	Common											*	
Rourea microphylla	小葉紅葉藤, 紅葉藤	Woody climber	Common		*				*						
Rubus leucanthus	白花懸鉤子	Climbing shrub	Common						*			,,,,,,,			
Rubus reflexus	蛇泡簕	Climbing shrub	Very common	*					*		*				
Sacciolepis indica	觀穎草	Herb	Very common				烽車	*			Alexander	*		estantaken es etk	

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Sageretia thea	雀梅藤	Shrub	Common	**		May said A			.		1. P. 1.		음		P.
Sagittaria sagittifolia	慈菇	Aquatic herb	Restricted -	<u> </u>					*			-		<u> </u>	├
Sapium discolor	山烏桕	Tree	Very common	*					ale	-		-			 -
Sapium sebiferum	烏桕	Tree	Common	:lt			*	ļ	***			-	<u> </u>	*	-
Sarcandra glabra	草珊瑚	Subshrub	Common		es e	<u></u>	7	elitery.	**	2.12	-11-		antonioni a	*	-
Saurauia tristyla	水東哥	Tree	Common		*		30,700			**					-
Schefflera arboricola	鵝掌藤	Shrub	Exotic, Common			*	2 2			*	*	.,			-
Schefflera heptaphylla		Tree	Very common	水本本	**			-	**	*	4	<u> </u>			├
Selaginella uncinata	翠雲草	Herb	Common		*			<u> </u>	74	-		<u> </u>		ļ	-
Senna bicapsularis	雙莢決明,雙 莢槐	Shrub	Exotic, Ocassionally cultivated in HK (AFCD 2008)			*			3 1:				i Here jetor		
Smilax china	金剛藤	Climbing shrub	Very common				*								
Solanum torvum	水茄	Shrub	Exotic, Common				*								
Spermacoce latifolia	闊葉豐花草	Herb	Exotic, Restricted						3)t						
Spermacoce stricta	豐花草	Herb	Restricted	14					*						ļ
Spilanthes paniculata	金鈕扣	Herb	Common		<u> </u>		*				<u> </u>				
Stachytarpheta jamaicensis	假馬鞭	Herb	Exotic, Common			*	*		*						
Sterculia lanceolata	假蘋婆	Tree	Very common	*				and the second of the second o	*						
Symplocos cochinchinensis var. laurina	黃牛奶樹	Tree	Common	**											
Symplocos crassifolia	厚葉山礬,厚 葉灰木	Tree	Common						*						

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Syzygium hancei	韓氏蒲桃・紅 鱗蒲桃	Tree	Common	**					*	\$¢	41			*	
Syzygium jambos	蒲桃	Tree	Exotic, Common	*			*								-
Syzygium levinei	山蒲桃	Tree	Common	*							-				+
Tadehagi triquetrum	葫蘆茶	Shrub	Very common				华		#				<u> </u>		+
Tetracera asiatica	錫葉藤	Woody climber	Very common	**		*			**						1
Tetradium glabrifolium	楝葉吳茱萸	Tree	Common	*											\vdash
Tinospora sagittata	青牛膽	Climber	Common							*					+
Toddalia asiatica	飛龍掌血	Climbing shrub	Restricted						*						
Turpinia montana	山香圓	Tree	Common						*						\dagger
Tylophora ovata	娃兒藤	Slender woody climber	Common	*	*				*						
Urena lobata	肖梵天花	Subshrub	Common			本水	**		#		*			**	\vdash
Urena procumbens	梵天花	Subshrub	Common	4			*		*		-				1
Utricularia bifida	挖耳草	Small herb	Common		*									<u> </u>	
Uvaria macrophylla	紫玉盤	Woody climber	Common	**											
Viburnum odoratissimum	珊瑚樹	Tree	Very common	***			*		***		**				
Vitex negundo	黃荊	Shrub	Common				*						arete .		
Vitex quinata	山牡荊	Tree	Common						*			-			-
Wedelia chinensis		Perennial Herb	Common								*				
Wedelia trilobata	三裂葉蟛蜞菊	Herb	Exotic, Common					*				*			

Ecological and Conservation Importance of Six Sai Kung Country Park Enclaves

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Fung Shui Woodland	Channelized Watercourse	Developed / Village Area	Grassland	Marsh	Secondary Woodland	Natural Watercourse	Plantation	Pond	Seasonally Wet Grassland	Shrubby Grassland	Waste Ground
Youngia japonica	黄鹌菜	Herb	Very common			g#	#			1		San James San San San San San San San San San San			
Zanthoxylum avicennae	簕欓花椒	Tree	Common	*	*				**		*				4.1
Zanthoxylum nitidum	Climbing shrub	Very common						*		*			와:리:		
Total			205	60	31	17	80	21	103	20	44	20	11	36	15

[^] Status follows Xing et al. (2000)

[#] Code for Abundance: ****= Abundant, *** = Frequent, ** = Occasional, * = Scarce

Table A1-5. Flora species recorded within To Kwu Peng enclave

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Fung Shui Woodland*	Mangrove	Secondary Woodland	Natural Watercourse	Ruderal Arca	Shrubby grassland	Waste Ground	Backshore Vegetation	Developed / Village Area
Acanthus ilicifolius	老鼠簕	Herb	Common		ak .			<u> </u>	1			-
Adiantum flabellulatum	扇葉鐵線蕨	Herb	Very common	100	 	 		<u> </u>	 		ļ	
Adina pilulifera	水團花	Tree	Very common	*	 		*		 			
Aegiceras corniculatum	桐花樹	Shrub	Common		*		*		 		<u> </u>	<u> </u>
Alangium chinense	八角楓	Tree	Common	**	ļ. —	非非		<u> </u>			*	ļ
Alocasia macrorrhizos	海芋	Herb	Very common	*	-	7.4			T		*	<u>+</u>
Anisomeles indica	廣防風	Herb	Common	ļ	 			<u> </u>	T		*	ļ *
Antidesma bunius	五月茶,五味子	Tree	Common	**		#			"	·		
Aporusa dioica	銀柴	Tree	Very common	***	 	***					 	
Aquilaria sinensis	土沉香	Tree	Common, Protected under Cap. 586, listed as Near Threatened (NT) in the China Plant Red Data Book and is under State protection (Category II) in China (Hu et al. 2003), classified as Critically Endangered (CR) on the IUCN Red List	Ji:				A CONTRACTOR OF THE CONTRACTOR				
Archidendron clypearia	猴耳環	Tree	Common	*		*:						
Ardisia crenata	大羅傘	Shrub	Common	*						· · · · · · · · · · · · · · · · · · ·		
Ardisia lindleyana	山血丹	Shrub	Common			*					<u> </u>	
Ardisia quinquegona	羅傘	Small tree	Very common	*		**						1.
Aster baccharoides	白舌紫菀	Herb	Very common	*								
Avicennia marina	白骨壤	Tree	Common		**				2	<u> </u>	1	
Axonopus compressus	地毯草	Herb	Exotic, Common	Lander Con-		Salaren Leed		*	非非			
Bauhinia championii		Woody climber	Common						**			

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Fung Shui Woodland	Mangrove	Secondary Woodland	Natural Watercourse	Ruderal Area	Shrubby grassland	Waste Ground	Backshore Vegetation	Developed / Village Area
	4									Ē.		
Blechnum orientale	烏毛蕨	Herb	Very common	*		**						
Breynia fruticosa	黑面神	Shrub	Very common			*			*		 -	+
Bridelia tomentosa	土蜜樹	Tree	Very common			 						
Brucea javanica	鴉膽子,苦 多子	Shrub or tree	Common			*			*			
Bruguiera gymnorhiza	木欖	Tree	Restricted		承							
Byttneria aspera	刺果藤	Woody climber	Very common	*		*						
Callicarpa kochiana	枇杷葉紫珠	Shrub	Common	*								
Carallia brachiata	竹節樹	Tree	Common		 	*			<u> </u>			
Cerbera manghas	海芒果	Tree	Common		H: H:	垛	*				*	
Cibotium barometz	金毛狗	Herb	Very common, Protected under Cap. 586, listed as Vulnerable (VU) in the China Red Data Book and is under State protection (category II) in China (Hu et al. 2003)			#						
Cinnamomum parthenoxylon	黄樟	Tree	Common	***		*			zer e		<u> </u>	
Clematis crassifolia	厚葉鐵線蓮	Climber	Restricted				*					
Conyza bonariensis	香絲草	Herb	Exotic, Very common					1111411		*		
Conyza canadensis	小蓬草	Herb	Exotic, Very common				:		:	*		
Cratoxylum cochinchinense	黄牛木	Tree	Very common	**			1 m		-,	*		*
Crinum asiaticum var. sinicum	文殊蘭	Herb	Restricted			1			*		#:	
Cyclosorus interruptus	間斷毛蕨	Herb	Common		:		135			*		
Cyclosorus parasiticus	華南毛蕨	Herb	Very common	*	1 22	***	1940) 120 - 12	149. 149		4.0		非津
Dalbergia benthamii		Woody climber	Common	**						本作		

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Fung Shui Woodland*	Mangrove	Secondary Woodland	Natural Watercourse	Ruderal Area	Shrubby grassland	Waste Gröund	Backshore Vegetation	Developed / Village Area
Daphniphyllum calycinum	牛耳楓	Tree	Common			**			. /	-		
Desmodium heterocarpon	假地豆	Subshrub	Very common	-					*	<u> </u>		1
Desmos chinensis	假鷹爪	Woody climber	Common	*		*	ar of the r		*			
Dicranopteris pedata	芒其	Herb	Very common	**		*	l	水本	*		†	
Dimocarpus longan	龍眼,桂圓	Тгее	Exotic, Restricted	**		*						1
Dioscorea bulbifera	黄獨	Climber	Common	*						1		1
Elaeocarpus decipiens	杜英	Tree	Common		-	#				-		
Elephantopus scaber	地膽草	Herb	Common							*		1
Emilia sonchifolia	一點紅	Herb	Very common							#	1	1
Excoecaria agallocha	海漆	Tree	Common		**						*	1
Ficus hirta	粗葉榕	Shrub	Common	本				1				
Ficus hispida	對葉榕	Tree	Very common	*		*					<u> </u>	1
Ficus pumila	薜荔	Climber	Very common									*
Ficus subpisocarpa	筆管榕	Tree	Common		#:					1	1	1
Ficus variegata var. chlorocarpa	青果榕	Tree	Common	X ;			-					
Ficus variolosa	變葉榕	Shrub or tree	Very common	*			<u> </u>					
Glochidion eriocarpum	毛果算盤子	Tree	Very common	*		*			*			
Glochidion zeylanicum	香港算盤子	Shrub	Common			*			**	*		*
Gnetum luofuense	羅浮買麻藤	Clmber	Very common, regarded as "Near Threatened" accordign to IUCN Red List	*				98				
Gymnanthera oblonga	海島藤	Slender woody climber	Regarded as Very Rare in Xing et al. (2000), common in serveral districs in HK including Sai Kung, Tsing Yi, Yeun Long and Lantau Island (AFCD 2009)		*		*					

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Fung Shui Woodland*	Mangrove	Secondary Woodland	Natural Watercourse	Ruderal Area	Shrubby grassland	Waste Ground	Backshore Vegetation	Developed / Village Area
								bo .		E.		
Heritiera littoralis	銀葉樹	Tree	Restricted		*			 		<u> </u>	**	1
Hibiscus tiliaceus	黄槿	Tree	Common	1	非准本	#	非非	<u> </u>			未水水	+
Ilex asprella	梅葉冬青	Shrub	Very common	*		*				1 100		1
Ipomoea cairica	五爪金龍	Herbaceous climber	Exotic, Very common				19.56					**
Ischaemum barbatum	粗毛鴨嘴草	Herb	Very common				非非		<u> </u>	 	1	f
Kalanchoe pinnata	落地生根	Herb	Exotic, Common									非
Kandelia obovata	水筆仔	Tree	Very common	†	***							<u> </u>
Kyllinga nemoralis	單穗水蜈蚣	Herb	Very common									*
Lantana camara	馬纓丹	Shrub	Exotic, Very common						**	*	-	*
Lasianthus attenuatus	斜基粗葉 木,小葉雞 尿樹	Shrub	Restricted	**								
Lindernia crustacea	母草	Herb	Restricted							*	 	
Lindsaea orbiculata	團葉鱗始蕨	Herb	Very common	*								-
Litchi chinensis	荔枝	Tree	Exotic, Restricted	*	-							1
Lophatherum gracile	淡竹葉	Herb	Very common	*				1111				
Lygodium japonicum	海金沙	Climber	Very common	#		*	*		*	**		
Lygodium scandens	小葉海金沙	Climber	Common	*	-	*				**	<u> </u>	
Macaranga tanarius var. tomentosa	血桐	Tree	Common			*						
Machilus chekiangensis	浙江潤楠	Tree	Very common	**		半本本		<u> </u>		1851		
Maesa perlarius	鯽魚膽	Shrub	Common	*		**		A SA	a)t			*
Mallotus paniculatus	白楸	Tree	Very common	***		**		(Many)	*			

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Fung Shui Woodland#	Mangrove	Secondary Woodland	Natural Watercourse	Ruderal Area	Shrubby grassland	Waste Ground	Backshore Vegetation	Developed / Village Area
Melastoma malabathricum	野牡丹	Shrub	Common			*		##	***	*		
Melastoma sanguineum	毛菍	Shrub	Common	1		*			*	*		-
Melicope pteleifolia	三椏苦	Tree	Common			*						1
Microcos nervosa	破布葉,布	Tree	Common	*								
Microstegium ciliatum	剛莠竹	Herb	Very common			**				**		
Mikania micrantha	薇甘菊	Herbaceous climber	Exotic, Very common	*				**	**	米水	 *	**
Mimosa pudica	含羞草	Herb	Exotic, Very common					**	**	ļ		
Neyraudia reynaudiana	類蘆	Herb	Common							*		
Paederia scandens	雞矢藤	Climber	Very common			1			*	 		*
Palhinhaea cernua	鋪地蜈蜙, 燈籠草	Creeping herb	Very common						*			
Paliurus ramosissimus	馬甲子	Ттее	Common		*						非非	<u> </u>
Pandanus austrosinensis	露兜草	Herb	Соттол	*								
Pandanus tectorius	露兜樹	Small tree	Very common		*	*	**			*	***	
Paspalum conjugatum	兩耳草	Herb	Exotic, Common	1				*	**			
Paspalum scrobiculatum var. orbiculare	圓果雀稗	Herb	Very common						*			
Pavetta hongkongensis	香港大沙葉	Shrub or small tree	Common, Protected under Cap. 96A	*		*		Tarana da	*			
Phoenix loureiroi	刺葵	Shrub or small tree	Common				*				半半	
Phyllanthus emblica	餘甘子,油甘子	Tree	Very common			*						

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Fung Shui Woodland*	Mangrove	Secondary Woodland	Natural Watercourse	Ruderal Area	Shrubby grassland	Waste Ground	Backshore Vegetation	Developed / Village Area
Phyllodium pulchellum	排錢草	Shrub	Very common	B 35 24 45 4 4	2.00			1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	 		-	
Piper cathayanum	青蒟	Climber	Restricted	*								-
Piper hancei	山蒟	Climber	Very common	*		<u> </u>				<u> </u>	-	-
Pongamia pinnata	水黄皮	Tree	Common	-	**				<u> </u>		 	
Praxelis clematidea	假臭草	Herb	Exotic, Very common					**	**	-	 	
Psidium guajava	番石榴	Tree	Exotic, Common		-					Tes.		**
Psychotria asiatica	九節	Shrub	Very common	***	:	***	<u> </u>		76			+
Pteris biaurita	狹眼鳳尾蕨	Herb	Common	spr.	j						-	
Pteris semipinnata	半邊旗	Herb	Very common	*								-
Pteris vittata	蜈蚣草	Herb	Very common	1. 1						*		-
Pueraria lobata	野葛	Climber	Very common						*	**	 	<u> </u>
Rhodomyrtus tomentosa	桃金娘	Shrub	Very common	*		*				*	 	<u> </u>
Rhus chinensis	鹽膚木	Tree	Common	*				1967	<u> </u>	*	 	<u> </u>
Rhus hypoleuca	白背鹽膚木	Tree	Common			4.			*			-
Rhus succedanea	野漆樹	Tree	Common			*					 	
Rourea microphylla	小葉紅葉 藤,紅葉藤	Woody climber	Common	*		ж						
Rubus reflexus	蛇泡簕	Climbing shrub	Very common	*								
Sageretia thea	雀梅藤	Shrub	Common			串						
Sapium discolor	山烏桕	Tree	Very common	坤			1,24		*	*		
Sapium sebiferum	烏桕	Tree	Common	*	a jer	ari ariji sa	<u> </u>		i Partus	i de la composition della comp		
Sarcandra glabra	草珊瑚	Subshrub	Common	冰本		**			18. u			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Schefflera heptaphylla	鴨腳木	Тгее	Very common	**		***		1000 C		- 40	- Net - 2/54	

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Fung Shui Woodland [#]	Mangrove	Secondary Woodland	Natural Watercourse	Ruderal Area	Shrubby grassland	Waste Ground	Backshore Vegetation	Developed / Village Area
				1	4		ing a distribution	17		Ē.		
Scolopia chinensis	刺柊	Tree	Common		**							
Scolopia saeva	廣東刺柊	Tree	Common			*						1
Scoparia dulcis	冰塘草	Herb	Common			1		<u> </u>	*			
Solanum torvum	水茄	Shrub	Exotic, Common	* -				#	2/4			**
Sphenomeris chinensis	烏韭	Herb	Common	*	-							-
Stachytarpheta jamaicensis	假馬鞭	Herb	Exotic, Common					*	*			
Sterculia lanceolata	假蘋婆	Tree	Very common	**		***				-		
Syzygium hancei	韓氏蒲桃, 紅鱗蒲桃	Tree	Common			*						
Syzygium jambos	蒲桃	Tree	Exotic, Common	*		**			1	ļ	 	
Syzygium levinei	山蒲桃	Tree	Common	*								
Tetracera asiatica	錫葉藤	Woody climber	Very common	ж		#						
Trema tomentosa	山黄麻	Tree	Common						74		*	
Triumfetta rhomboidea	刺蒴麻	Subshrub	Common					127				*
Tylophora ovata	娃兒藤	Slender woody climber	Common			*						
Urena lobata	肖梵天花	Subshrub	Common			*		*	***	*		
Urena procumbens	梵天花	Subshrub	Common					·	ak			
Ivaria macrophylla	紫玉盤	Woody climber	Common	华		*	<u> </u>		1			6
Vernonia cinerea	夜香牛。	Herb	Very common						*		1	
Viburnum odoratissimum	珊瑚樹	Tree	Very common			*			Andrea Andrea		# B.	140 MM
Vitex quinata	山牡荊	Tree	Common							175. 15 31		

arrest the company of		Growth Form	Status and Distribution in HKA	Fung Shui Woodland	Mangrove	Secondary Woodland	Natural Watercourse	Ruderal Area	Shrubby grassland	Waste Ground	Backshore Vegetation	Developed / Village Area
Zanthoxylum ailanthoides	椿葉花椒	Tree	Regarded as Rare in Xing et al. (2000), restricted to several locations in HK such as Chek Keng and Tai Long Sai Wan according to AFCD 2008						*			
Zanthoxylum avicennae	簕欓花椒	Tree	Common	*		*			1 1 1 1	*		1
Zanthoxylum nitidum	兩面針	Climbing shrub	Very common	*		*		**	*			
Total			140	64	15	57	8	12	41	25	12	16

[^] Status follows Xing et al. (2000)
Code for Abundance: ****= Abundant, *** = Frequent, ** = Occasional, * = Scarce

Table A1-6. Flora species recorded within Pak Sha O enclave

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Marsh [#]	Secondary Woodland	Natural Watercourse	Pak Sha O Fung Shul Woodland	Fak Sia O na Teing Fung Shui Woodland	Ruderal Area	Seasonally Wet Grassland	Developed / Village Area	Dry Agricultural Land
Abrus mollis	毛相思子	Woody climber	Restricted				*	*				
Achyranthes aspera	土牛膝	Herb	Common							ļ		<u>1</u> ;
Acorus gramineus	石菖蒲	Herb	Very common			**			1			
Adenostemma lavenia	下田菊	Herb	Restricted	**								
Adiantum flabellulatum	扇葉鐵線蕨	Herb	Very common				*	*				
Adina pilulifera	水團花	Tree	Very common		*	**	<u> </u>			<u> </u>		
Adinandra millettii	黄瑞木	Tree	Common	*								<u> </u>
Alangium chinense	八角楓	Tree	Common		***		**	**			*	
Alocasia macrorrhizos	海芋	Herb	Very common			*	*	*				
Alpinia hainanensis	草豆蔻	Herb	Very common			**	*	*				
Alpinia stachyodes	密苞山薑	Herb	Common		*	*	*		<u> </u>	11-11-11		
Anisomeles indica	廣防風	Herb	Common		*							
Antidesma bunius	五月茶,五味子	Tree	Common				*					
Antirhea chinensis	毛茶	Small tree	Very common		*			· ·				
Aporusa dioica	銀柴	Tree	Very common		**		***	***	*			
Aquilaria sinensis	土沉香	Tree	Common, Protected under Cap. 586, listed as Near Threatened (NT) in the China Plant Red Data Book and is under State protection (Category II) in China (Hu et al. 2003), classified as Critically Endangered (CR) on the IUCN Red List		*		*					
Archidendron clypearia	猴耳環	Tree	Common		*			*				

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Marsh*	Secondary Woodland	Natural Watercourse	Pak Sha O Fung Shui Woodland	Fung Shui Woodland	Ruderal Area	Seasonally Wet Grassland	Developed / Village Area	Dry Agricultural Land
						ercour	nd	a I cully	a d	Vet	Village	hural
Ardisia crenata	大羅傘	Shrub	Common		*	*	**	*			1	1
Ardisia lindleyana	山血丹	Shrub	Common	8-	*	 	***	*			-	
Ardisia quinquegona	羅傘	Small tree	Very common		**	 	**	**	<u> </u>		-	-
Axonopus compressus	地毯草	Herb	Exotic, Common			ļ			 	***		-
Bambosa sp.	竹屬	Bambos	Common		*				 			
Bauhinia glauca	粉葉羊蹄甲, 羊蹄甲藤	Woody	Very common				***					
Bischofia javanica	秋楓	Tree	Common				*	 		1	1.1	
Blechnum orientale	烏毛蕨	Herb	Very common		**	*	*	**			 	
Bothriochloa ischaemum	白羊草	Herb	Common						 			*
Bougainvillea spectabilis	簕杜鵑	Climbing shrub	Exotic, Common							A	*	
Breynia fruticosa	黑面神	Shrub	Very common		*			*		*		
Bridelia tomentosa	土蜜樹	Tree	Very common	*	*		*					-
Brucea javanica	鴉膽子,苦多 子	Shrub or tree	Common		**							
Byttneria aspera	刺果藤	Woody climber	Very common		****		***	**				
Caesalpinia crista	假老虎簕	Woody climber	Very common		*			*				
	白藤	Climber	Common			*	*					1 4
Calliandra naematocephala	紅絨球	Shrub	Exotic, Commonly cultivated								*	
Carex chinensis	中華鳌草	Herb	Common		25 55	y:			Ay	Barrier B		. 5

Scientific Name	Chinese Common Name	Growth Form:	Status and Distribution in HK^	Marsh*	Secondary Woodland	Natural Watercourse	Pak Sha O Fung Shui Woodland	Fung Shui Woodland	Ruderal Area	Seasonally Wet Grassland	Developed / V Area	Dry Agricultural
						rcourse	d %	I Lung	4	2	/ VШаде	
Catharanthus roseus	長春花	Herb	Exotic, Common					1 - 3			샤	
Cayratia corniculata	角花鳥蘞莓	Climber	Very common				*					
Centella asiatica	崩大碗	Herb	Very common	*								
Cibotium barometz	金毛狗	Herb	Very common, Protected under Cap. 586, listed as Vulnerable (VU) in the China Red Data Book and is under State protection (category II) in China (Hu et al. 2003)		*	*	*					
Cinnamomum camphora	樟	Тгее	Common		*		*					1
Cinnamomum parthenoxylon	黄樟	Tree	Common		**		***	***				
Cleistocalyx nervosum	水翁	Tree	Common		**	**	+			190		
Clerodendrum chinense	重瓣臭茉莉	Shrub	Common								*	
Colocasia esculenta	学	Herb	Cultivated	At .								**
Commelina diffusa	節節草	Herb	Common	*								*
Coriandrum sativum	芫荽	Herb	Exotic, Cultivated									お本
Cratoxylum cochinchinense	黄牛木	Tree	Very common		***	*	*	*				
Cyclosorus interruptus	間斷毛蕨	Herb	Common	**								*
Cyclosorus parasiticus	華南毛蕨	Herb	Very common		**		**	*		254454 - 244 2454		
Cyperus compressus	扁穗莎草	Herb	Very common	*								*
Cyperus pilosus	毛軸莎草	Herb	Common	*					44.	42		*
Cyrtococcum patens	弓果黍	Herb	Very common	**	非 *			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				**
Dalbergia benthamii		Woody climber	Common		**		水水	*	*			

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Marsh [#]	Secondary Woodland	Natural Watercourse	Pak Sha O Fung Shui Woodland	Fung Shui Woodland	Ruderal Area	Seasonally Wet Grassland	Developed / \ Area	Dry Agricultural Land
						rcours	ang ung			er er	Village	wral
Dalbergia hancei	藤黃檀	Woody climber	Common	4.			ą.	*	<u> </u>			
Daphniphyllum calycinum	牛耳楓	Тгее	Common		***		*	*				
Desmodium heterocarpon	假地豆	Subshrub	Very common	*	1							***************************************
Desmos chinensis	假鷹爪	Woody climber	Common		*		**	*	*			
Dicranopteris pedata	芒萁	Herb	Very common		*		#	非承	*			
Dimocarpus longan	龍眼,桂圓	Tree	Exotic, Restricted		*		*	*			*	
Dioscorea bulbifera	黄獨	Climber	Common		*			2			1:	
Diospyros eriantha	烏柿	Tree	Very common		*			*				
Diospyros morrisiana	羅浮柿	Tree	Very common	W.	*			*		100,0		
Elaeagnus loureirii	雞柏紫藤,羅氏 胡頹子	Woody climber	Common		*		*	*	\$164444 1	1		
Elaeocarpus decipiens	杜英	Tree	Common				#					
Elephantopus scaber	地膽草	Herb	Common							**		
Eleutherococcus trifoliatus	白簕	Woody climber	Restricted				*					
Embelia ribes	白花酸藤子	Woody climber	Common			100 mm		*				
		Woody climber	Common				*					
Endospermum chinense	黄桐	Tree	Restricted		**		**					3
Epîpremnum aureum	綠蘿	Climber	Exotic, Commonly cultivated	la de		190	*					32
Eriocaulon truncatum	菲律賓穀精草	Herb	Common	*					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2.7711.27		

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Marsh*	Secondary Woodland	Natural Watercourse	Pak Sha O Fung Shui Woodland	Fung Shui Woodland		Seasonally Wet Grassland	Developed / Village Area	Dry Agricultural Land
			A Company of the Comp			ours		a sung			age	
Ficus benjamina	垂葉榕	Tree	Exotic, Commonly planted for greening			TD.		*	31			1
Ficus hirta	粗葉榕	Shrub	Common		*			*				-
Ficus hispida	對葉榕	Tree	Very common		*		#		*		1	
Ficus microcarpa	細葉榕	Tree	Common				*					1
Ficus pumila	薜荔	Climber	Very common								*	1
Ficus pyriformis	舶梨榕	Shrub	Common	,		*	-					1
Fimbristylis sieboldii	銹鱗飄拂草	Herb	Common	*								1
Floscopa scandens	聚花草	Herb	Common	***		*				*		**
Fuirena umbellata	芙蘭草	Herb	Common	**				1.				*
Garcinia oblongifolia	黄牙果	Tree	Very common		*			*				
Geissapis cristata	睫苞豆	Herb	Regarded as Rare in Xing et al. (2000), restricted to several locations including Deep Water Bay, Tai Mong Tsai, Sai Keng and Lantau Island according to AFCD 2008	***						**		अस्मः
Glochidion eriocarpum	毛果算盤子	Tree	Very common		*		*	*				1
Glochidion wrightii	白背算盤子	Tree	Very common				:	*				
Glochidion zeylanicum	香港算盤子	Shrub	Common	**				***		**		*
Gnetum luofuense	羅浮買麻藤	Clmber	Very common, regarded as "Near Threatened" accordign to IUCN Red List		*	*	*		*		21	
Hedychium coronarium	薑花	Herb	Exotic, Common			*		37/ 7/19				
Houttuynia cordata	魚腥草	Herb	Regarded as Very Rare in Xing et al. (2000), restricted to several locations including Lam Tsuen and Sha Lo Tung according to AFCD 2007	**	*							

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Marsh*	Secondary Woodland	Natural Watercourse	Pak Sha O Fung Shui Woodland	Fung Shui Woodland	4.	Seasonally Wet Grassland	Developed / Village Area	Dry Agricultural Land
Hydrocotyle sibthorpioides	天胡荽	Herb	Common	*		P		ofc				nfc
Hygrophila salicifolia	水蓑衣	Herb	Common	*								1
Hypericum japonicum	地耳草	Herb	Very common	*			-		<u> </u>		1	
Hypserpa nitida	夜花藤	Woody climber	Very common					*		-		
Ilex asprella	梅葉冬青	Shrub	Very common		*		*	*		*	1	-
Impatiens chinensis	華鳳仙	Herb	Common	**		1	1				 	**
Ipomoea cairica	五爪金龍	Herbaceous climber	Exotic, Very common		*	*			2000		*	
Ischaemum barbatum	粗毛鴨嘴草	Herb	Very common	***						 		-
Kyllinga brevifolia	短葉水蜈蚣	Herb	Common	ж						*		*
Kyllinga nemoralis	單穗水蜈蚣	Herb	Very common								*	
Leersia hexandra	李氏禾	Herb	Common	**								*
Lemmaphyllum microphyllum	伏石蕨	Herb	Common				1 #					
Lepidagathis incurva	鱗花草	Herb	Common		*							
Ligustrum sinense	山指甲	Shrub or small tree	Common		*		14	i e	<u> </u>			
Lindernia oblonga	梭萼母草	Herb	Restricted	**	†					*		*
Lindernia rotundifolia	迷你虎耳草	Herb	Restricted	*					41, 4			*
Lindsaea orbiculata	團葉鱗始蕨	Herb	Very common		*		#		ing. Mag		 	
Liparis ferruginea	銹色羊耳蒜	Herb	Regarded as Scarce and Restricted, and is a locally endangered species (EN) in HK (Barretto et al. 2011)	*								

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Marsh	Secondary Woodland	Natural Watercourse	Pak Sha O Fung Shui Woodland	Fung Shui Woodland	G &	Seasonally Wet Grassland	Developed / Village Area	Dry Agricultural Land
Litsea rotundifolia var. oblongifolia	豺皮樟	Tree	Very common		*		*	*				
Lonicera macrantha	大花忍冬	Climber	Common		*					1		1
Lophatherum gracile	淡竹葉	Herb	Very common		*			*				
Lophostemon confertus	紅膠木	Tree	Exotic, Commonly planted		*							1
Ludisia discolor	石蠶	Herb	Regarded as infrequent but widespread, and is a locally endangered species (EN) in HK (Barretto et al. 2011) Common **									
Ludwigia adscendens	水龍	Herb	Common	:k			100					:ft
Ludwigia hyssopifolia	草龍	Herb	Common									
Ludwigia octovalvis	毛草龍	Herb	Common	* .		<u> </u>				*		*
Ludwigia x taiwanensis	台灣水龍	Herb	Exotic, Common	*								*
Lygodium japonicum	海金沙	Climber	Very common		**		*		*			
Lygodium scandens	小葉海金沙	Climber	Common	*	*		オ・	*	*			
Macaranga tanarius var. tomentosa	血桐	Tree	Common		#							
Machilus breviflora	短序潤楠	Tree	Very common				*					
Machilus chekiangensis	浙江潤楠	Тгее	Very common		**		*	***				
Maesa perlarius	鯽魚膽	Shrub	Соттоп	7:	**		**	**	*		**	
Mallotus paniculatus	白楸	Tree	Very common		非非体		**		*	*	46.	
Mangifera indica	杧果	Tree	Exotic, Commonly planted for fruit	-							*	
Melastoma malabathricum	野牡丹	Shrub	Exotic, Commonly planted for fruit Common ***							*		*
Melastoma sanguineum	毛菍	Shrub	Common		*		. 10.	*				



Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Marsh#	Secondary Woodland	Natural Watercourse	Pak Sha O Fung Shui Woodland	Fung Shui Woodland	31	Seasonally Wet Grassland	Developed / Village Area	Dry Agricultural Land
Reference of the Control of the Cont				1 3		ITSe		eung			76	
Melicope pteleifolia	三椏苦	Tree	Common		*	i in		*				
Meliosma rigida	筆羅子	Tree	Common		*	1-4.	ŀ					
Mikania micrantha	薇甘菊	Herbaceous climber	Exotic, Very common			i e y sai						4:
Millettia dielsiana	山雞血藤	Woody climber	Very common		#		1			1		
Murdannia nudiflora	裸花水竹葉	Herb	Common	**	Ženesen.							*
Mussaenda pubescens	玉葉金花	Climbing shrub	Very common		*							
Neyraudia reynaudiana	頻蘆	Herb	Common		*							
Ophiorrhiza pumila	短小蛇根草	Негь	Common	<u> </u>	*			* * * * * * * * * * * * * * * * * * * *				
Palhinhaea cernua	鋪地蜈蜙, 燈籠 草	Creeping herb	Very common	**								
Pandanus austrosinensis	露兜草	Herb	Common			**	*	*			<u> </u>	
Panicum brevifolium	短葉黍	Herb	Very common	**		*	ja ja					
Panicum dichotomiflorum	水生黍	Herb	Common	**	<u> </u>					<u> </u>		
Panicum repens	舖地黍/枯骨草	Herb	Very common	**		14.						
Paspalum conjugatum	兩耳草	Herb	Exotic, Common	*					1.7			
Paspalum scrobiculatum var. orbiculare	圓果雀稗	Herb	Very common									**
Pavetta hongkongensis	香港大沙葉	Shrub or small tree	Common, Protected under Cap. 96A		*	*	*	*	**			
Philydrum lanuginosum	田蔥	Herb	Common	**								
Phoenix loureiroi	1941125	Shrub or small tree	Common		**	*	*					

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HKA	Marsh*	Secondary Woodland	Natural Watercourse	Pak Sha O Fung. Shui Woodland	Fung Shui. Woodland	Ruderal Area	Seasonally Wet Grassland	Developed / Village Area	Dry Agricultural Land
Piper cathayanum	青蒟	Climber	Restricted		**	Ř	*	्र वर्ष	*	1 280		-
Pogostemon auricularius	水珍珠菜	Herb	Common	**						1k		**
Polygonum barbatum	毛蓼	Негь	Common	本本								**************************************
Polygonum glabrum	光蓼	Herb	Restricted									*
Polygonum pubescens	短毛蓼	Herb	Common	**						非本		非米
Pothos chinensis	石柑	Epiphytic climber	Very common			*	*					
Pronephrium simplex	單葉新月蕨	Herb	Very common		*							
Psidium guajava	番石榴	Tree	Exotic, Common							th.		
Psychotria asiatica	九節	Shrub	Very common		***	*	***	**	*		*	1
Psychotria serpens	蔓 九節	Semi-woody climber	Very common					*				
Pteris semipinnata	半邊旗	Herb	Very common		**	**	नेत्रम	*	*			
Quisqualis indica	使君子	Woody climber	Restricted								*	
Rhaphiolepis indica	車輪梅	Shrub or small tree	Very common			*			since a		*	
Rhodomyrtus tomentosa	桃金娘	Shrub	Very common		*							
Rhus hypoleuca	白背鹽膚木	Tree	Common		*			10,74, 10,144				
Rhus succedanea	野漆樹	Tree	Common		**		*		-		4	
		Woody climber	Common		*			*				
Rubus leucanthus		Climbing shrub	Common		*							

Scientific Name	Chinese Common Name	Growth	Status and Distribution in HK^	Marsh*	Secondary Woodland	Natural Watercourse	Pak Sha O Fung Shui Woodland	Fak Sha O Ha Fung Shui Woodland	Ruderal Area	Seasonally Wet Grassland	Developed / Village Area	Dry Agricultural Land
	Solumon Name					tercours	Fung and	Ha Yeung	S.	Wet	/ Village	lfural
Rubus reflexus	蛇泡簕	Climbing shrub	Very common		*		*	09				
Sacciolepis indica	囊穎草	Herb	Very common	*								*
Sageretia thea	雀梅藤	Shrub	Common		*		*					
Salvia plebeia	荔枝草,雪見草	Herb	Restricted	*						**		
Sapium discolor	山烏桕	Tree	Very common		7		*					-
Sapium sebiferum	鳥桕	Tree	Common		*		*			**	 	
Sarcandra glabra	草珊瑚	Subshrub	Common		*		#	#				
Saurauia tristyla	水東哥	Tree	Common		*	未来	*					
Schefflera heptaphylla	鴨腳木	Tree	Very common	****	**		***	***				
Scolopia saeva	廣東刺柊	Tree	Common		*		*	#				
Senna alata	翅荚決明	Shrub	Exotic, Common								*	
Smilax china	金剛藤	Climbing shrub	Very common					*				
Smilax glabra	土茯苓,光葉菝 葜	Climbing shrub	Very common				*) :				
ориси		Climbing shrub	Common		*			4:			1	
Sphaerocaryum malaccense	稃蓋	Herb	Common	***								**
Sphenomeris chinensis	烏韭	Herb	Common	1	*		*	*		l as		
Spilanthes paniculata	金鈕扣	Herb	Common	*	1 2 2 2 2 2 2 2			Masar ya s		*		*
Stephania longa	千金藤	Climber	Common		*							1
Sterculia lanceolata	假蘋婆	Tree	Very common		**	1.5%	***	40	+ (C) (

Scientific Name	Chinese	Growth	Status and Distribution in HKA	Marsh*	Secondary Woodland	Natural Watercourse	Pak Sha O Fung Shui Woodland	Fung Shui Woodland	Ruderal Area	Seasonally Grassland	Developed / Village Area	Dry Agricultural Land
	Common Name	Form	Gatts and Distribution in 11X			ater	Fu		Tes	Wet	[V V]	l litu
						course	1.8	Sirma r	4		llage	12
Strophanthus divaricatus	羊角拗	Woody climber	Common		*			0.				
Symplocos cochinchinensis var. laurina	黄牛奶樹	Ттее	Common	14	*			***				
Symplocos glauca	羊舌樹	Tree	Common angle		#							
Symplocos lancifolia	光葉山礬	Tree	Common	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				*				
Symplocos sumuntia	山礬	Тгее	Restricted		*							1
Syzygium hancei	韓氏蒲桃	Tree	Common		*			*			1	1
Syzygium jambos	蒲桃	Tree	Exotic, Common		*		*	*				1
Syzygium levinei	山蒲桃	Tree	Common		*		*	*				
Tectaria subtriphylla	叉蕨	Herb	Common				*					
Tetracera asiatica	錫葉滕	Woody climber	Very common		非半		*					
Triumfetta rhomboidea	刺蒴麻	Subshrub	Common							**		
Tylophora ovata	娃兒藤	Slender woody climber	Common		*							
Urena lobata	肖梵天花	Subshrub	Common	*						**		*
Urena procumbens	梵天花	Subshrub	Common	*						**		*
Utricularia bifida	挖耳草	Small herb	Common	*							1	*
Uvaria macrophylla		Woody climber	Common		*		*	*				
Viburnum odoratissimum	珊瑚樹	Тгее	Very common	184	***		**	非非		**		20
Wikstroemia nuţans	細軸蕘花	Shrub	Common		*	#: #:	*	*	1944 1944		20 (14 + 2 t) 2 (4)	The factor

Ecological and Conservation Importance of Six Sai Kung Country Park Enclaves

Scientific Name	Chinese Common Name	Growth Form	Status and Distribution in HK^	Marsh.	Secondary Woodland	Natural Watercourse	Pak Sha O Fung Shui Woodland	P 2 C	Ruderal Area	Seasonally Wet Grassland	Developed / Village Area	Dry Agricultural Land
Xyris pauciflora		Herb	Restricted	*							<u> </u>	
Zanthoxylum avicennae	簕欓花椒	Tree	Common		*			*	 			+
Zanthoxylum nitidum	I MAN SHALLER I MAN I	Climbing shrub	Very common		**		*	*	*			
Total			200	53	100	26	77	66	15	22	15	36

[^] Status follows Xing et al. (2000)
Code for Abundance: **** = Abundant, *** = Frequent, ** = Occasional, * = Scarce

Table A2-1. Avian species recorded (1) or predicted to occur (P) in the habitats.

Habitats: FSW - Fung Shui & Secondary Woodland; SHG - Shrubland / Grassland; GRA - Grassland; DAL - Dry Agricultural Land; SWG - Seasonally Wet Grassland; MAR - Marsh; PON - Pond; NWA - Natural Watercourse; MAN - Mangrove; BVG - Backshore Vegetation; RUD - Ruderal; DVA - Developed / Village Area; WGR - Waste Ground.

	Local Control Property Control Street	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<u> </u>	ale es	140 6 2 90	description,	The state of the	Ludela	, DVA	DUVUIC	pcu, v	rinage P	LICA, W	717 - 44	asie Git	Julia.
English Name	Scientific Name	Conservation Status	FSW	SHG.	GRA	DAL	SWG	MAR	PON:	NWA	Sea	MAN	BVG	RUD	DVA	WGR
Chinese Francolin	Francolinus pintadeanus			1	1								1		, ,	
Japanese Quail	Coturnix japonica				P	·										+
Malayan Night Heron	Gorsachius melanolophus		P		 		<u> </u>				 					
Black-crowned Night Heron	Nycticorax nycticorax	(LC)						1	1	l		1	1			
Striated Heron	Butorides striata	(LC)								P		P	<u> </u>	<u> </u>	†	-
Chinese Pond Heron	Ardeola bacchus	PRC/(RC)		7			1:	1	1	1		1	1		 	
Eastern Cattle Egret	Bubulcus coromandus				1			1	1				1			
Grey Heron	Ardea cinerea	PRC		1.11						<u> </u>	1	1	1			
Great Egret	Ardea alba	PRC/(RC)		1		:					1	1	1		1	
Intermediate Egret	Egretta intermedia		1			1		1			:					1
Little Egret	Egretta garzetta	PRC/(RC)	100	1							1	1	1			
Pacific Reef Heron	Egretta sacra										1	1	1			1
Black Baza	Aviceda leuphotes		1	1.								1				
Crested Honey Buzzard	Pernis ptilorhynchus	LC	1													
Black Kite	Milvus migrans	(RC)		1	1	1	1	1	1				1	1	1	1
White-bellied Sea Eagle	Haliaeetus leucogaster	(RC)	1			1.					1	1	1			
Crested Serpent Eagle	Spilornis cheela	(LC)	1	1		1:										
Crested Goshawk	Accipiter trivirgatus		1	1												
Chinese Sparrowhawk	Accipiter soloensis		P	P	1				14.			:				
Japanese Sparrowhawk	Accipiter gularis		1	1											1	
Besra	Accipiter virgatus		ı	1												
Eastern Buzzard	Buteo japonicus			P	P	P	P	P	P							i.
Bonelli's Eagle	Aquila fasciata	(RC)	1						-4							
Common Kestrel	Falco tinnunculus			1	1	1	l									
Amur Falcon	Falco amurensis		1	1				la.								
Eurasian Hobby	Falco subbuteo		1	:Algreni	(a) DESCRIP	Billion A.	4.750	- 1 Y 35	1		garan.			3.4.7	 	

English Name	Scientific Name	Conservation Status	FSW	SHG	GRA	DAL	swg:	MAR	PON	NWA.	Sea	MAN.	BVG	RUD	DVA	WGR
Peregrine Falcon	Falco peregrinus	(LC)		1	1	1	1	1	1		A			-	-	1
White-breasted Waterhen	Amaurornis phoenicurus			1	 		-	1	1	1		1	1		ļ	+
Eurasian Woodcock	Scolopax rusticola		1	1			1	1	_	ļ*	 	1	1	ļ	1	-
Common Sandpiper	Actitis hypoleucos							-			P	P	P	<u> </u>		-
Oriental Turtle Dove	Streptopelia orientalis		1	1		 	<u> </u>					F	F	 	+	
Spotted Dove	Spilopelia chinensis		1	1		1	:		1			1	1	1	1	1
Common Emerald Dove	Chalcophaps indica		1	1		-	-		1	-	<u> </u>		1	1	1	1
Greater Coucal	Centropus sinensis			P	Р					 						
Lesser Coucal	Centropus bengalensis			P	P							-			 	
Chestnut-winged Cuckoo	Clamator coromandus		1	1	f -								 		 	1.
Asian Koel	Eudynamys scolopaceus		1	1							·				1	-
Large Hawk Cuckoo	Hierococcyx sparverioides		1	-										_	1	
Hodgson's Hawk Cuckoo	Hierococcyx nisicolor		1	1			1	-						-		
Indian Cuckoo	Cuculus micropterus		-	1	 			<u> </u>				-		 	1	-
Oriental Cuckoo	Cuculus optatus		ī	1											1	<u> </u>
Collared Scops Owl	Otus lettia		1	1	1								1			
Eurasian Eagle Owl	Bubo bubo	RC			P										-	
Brown Fish Owl	Ketupa zeylonensis	RC	1					1		1	1					
Grey Nightjar	Caprimulgus jotaka	LC	1							-	*		:	ļ		
Savanna Nightjar	Caprimulgus affinis			1	1							1			 	
Pacific Swift	Apus pacificus	(LC)	1	1	1	1	1	1	1	1	1	1	1	1	1	1
House Swift	Apus nipalensis		1	1	1	1	1	1	1	1	1	1	1	1	1	1
Oriental Dollarbird	Eurystomus orientalis		1	1					-	-			*	1	-	<u> </u>
White-throated Kingfisher	Halcyon smyrnensis	(LC)						P	P	P	P	Р	P			
Black-capped Kingfisher	Halcyon pileata	(LC)						1	•		1	1	1			
Common Kingfisher	Alcedo atthis							•		1	1	1	1			-
Eurasian Hoopoe	<i>Ирира ерор</i>		nerekî.	P	P				<u> </u>	. 4.6764-4	1	1	1			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Black-winged Cuckooshrike	Coracina melaschistos		I a constant													
Ashy Minivet	Pericrocotus divaricatus		1								1 11-	Contraction in		<u>superpubèr</u>	# 7 44	

English Name	Scientific Name	Conservation Status	FSW	SHG	GRA	DAL	SWG	MAR	PON	NWA.	Sea	MAN	BVG.	RUD	DVA	WGR
Grey-chinned Minivet	Pericrocotus solaris	LC	P													
Scarlet Minivet	Pericrocotus speciosus		1	1000					<u> </u>							1-
Tiger Shrike	Lanius tigrinus		P						-	-						
Bull-headed Shrike	Lanius bucephalus		1	1	1				-						 	+
Brown Shrike	Lanius cristatus			1	1	1			-					-		
Long-tailed Shrike	Lanius schach			1	1	1		-					<u> </u>		1	-
White-bellied Erpornis	Erpornis zantholeuca	LC	1										<u> </u>		-	-
Black-naped Oriole	Oriolus chinensis	LC	P											 		+
Black Drongo	Dicrurus macrocercus		J	1								l				-
Ashy Drongo	Dicrurus leucophaeus	LC	P							<u> </u>		 	 			+
Hair-crested Drongo	Dicrurus hottentottus		1	1		1,222,222				<u> </u>			 			
Black-naped Monarch	Hypothymis azurea		1	1						ļ						
Asian Paradise-Flycatcher	Terpsiphone paradisi	LC	1			<u> </u>		-		+						
Japanese Paradise- Flycatcher	Terpsiphone atrocaudata	NT,LC	1						1							
Red-billed Blue Magpie	Urocissa erythroryncha			1						-		 			 	
Grey Treepie	Dendrocitta formosae	LC	1	1							 					1
Collared Crow	Corvus torquatus	NT,LC							(1.000.01)		Р	Р	P	 	<u> </u>	1
Large-billed Crow	Corvus macrorhynchos		1	1								ļ				
Grey-headed Canary- flycatcher	Culicicapa ceylonensis		1			40,000										
Cinereous Tit	Parus cinereous		1	1		100 mg										
Red-whiskered Bulbul	Pycnonotus jocosus		1	1	1	1	1	1	1	1		1	1	1.	1	1
Chinese Bulbul	Pycnonotus sinensis		I	1	1	1	1	1	1	1		1	1	1	1	1
Sooty-headed Bulbul	Pycnonotus aurigaster		u	1	1	1			-	-		-	-	-	-	-
Chestnut Bulbul	Hemixos castanonotus		1	1		-										
Barn Swallow	Hirundo rustica		1	1	1	1	1	1	1	1		1	1.	1	1	1
Pygmy Wren-babbler	Pnoepyga pusilla		1		<u></u>	.5	<u>-</u>	· - · · · · · · · · ·	-	•				-	•	-
Mountain Tailorbird	Phyllergates cuculatus		i				Total Control						***********			
_	Horornis diphone		-	1 4.			. 200	1,74	10000000 10000000000000000000000000000			 				1 1 1 1 1

English Name	Scientific Name	Conservation Status	FSW	SHG	GRA.	DAL	SWG	MAR	PON.	NWA	Sea	MAN	BVG	RUD	DVA	WGR
Manchurian Bush Warbler	Horornis borealis			1	<u> </u>				i jarna Suda	*					*	<u> </u>
Brown-flanked Bush Warbler	Horornis fortipes		1													1
Asian Stubtail	Urosphena squameiceps		1	1	<u> </u>		1					-		-		
Dusky Warbler	Phylloscopus fuscatus			1		1	1					1:				
Radde's Warbler	Phylloscopus schwarzi			1			1					 				+:
Chinese Leaf Warbler	Phylloscopus yunnanensis		1	1			-	-				1				
Pallas's Leaf Warbler	Phylloscopus proregulus		1	1	1										1	+
Yellow-browed Warbler	Phylloscopus inornatus		1	1	<u> </u>		1	 					1		1	
Hume's Leaf Warbler	Phylloscopus humei		1	2					<u> </u>		****	<u> </u>	-		1	
Arctic Warbler	Phylloscopus borealis	alitro	1	1								2.5	342000 0 0 5	· · · ·	1-1	
Japanese Leaf Warbler	Phylloscopus xanthodryas		1	1				-		27444				<u> </u>		-
Two-barred Warbler	Phylloscopus plumbeitarsus		1								-					
Pale-legged Leaf Warbler	Phylloscopus tenellipes		1	1					 							1
Sakhalin Leaf Warbler	Phylloscopus borealoides		1	1									1.20			
Eastern Crowned Warbler	Phylloscopus coronatus		1	1			<u> </u>								1.	
Goodson's Leaf Warbler	Phylloscopus goodsoni		1	1	 							<u> </u>				
Sulphur-breasted Warbler	Phylloscopus ricketti		P			<u> </u>						 				
White-spectacled Warbler	Seicercus affinis		P	<u> </u>				<u> </u>		. ,					<u> </u>	
	Acrocephalus tangorum	VU	1					1	a selface e etc				1			
Russet Bush Warbler	Locustella mandelli	- 95	:	1	i		250.5	<u> </u>					•			+
Yellow-bellied Prinia	Prinia flaviventris			1	1	1	1	1			<u> </u>		1	1	1	1
Plain Prinia	Prinia inornata				P									_	1	<u> </u>
Common Tailorbird	Orthotomus sutorius		1	1	1	1			1				1	1	1	1
Streak-breasted Scimitar Babbler	Pomatorhinus ruficollis		1								1		-	•		İ
		LC	1			<u> </u>					<u> </u>	Language Control	<u> 1846 - 194</u>		at sees as any to	
and the second s	Garrulax canorus			1									<u> </u>	N 44	2	
Masked Laughingthrush	Garrulax perspicillatus		1	1		4 - 14. 25 25.		13.0 to 14			<u> 1,5 ,5 ,5 ,5 ,5 ,5 ,5 ,5 ,5 ,5 ,5 ,5 ,5 ,</u>		7 24 2			

English Name	Scientific Name	Conservation Status	FSW ;	SHG	GRA	DAL.	SWG	MAR	PON	NWA.	Sea	MAN	BVG	RUD	DVA	WGR
Greater Necklaced Laughingthrush	Garrulax pectoralis		1	1			9									
Black-throated Laughingthrush	Garrulax chinensis		1	1												
Blue-winged Minla	Minla cyanouroptera		ı	l					 						 	+
Chestnut-collared Yuhina	Yuhina castaniceps	LC	1						1	 				 	-	+
Chestnut-flanked White- eye	Zosterops erythropleurus		1													
Japanese White-eye	Zosterops japonicus		1	1	***								<u> </u>		1	1
Crested Myna	Acridotheres cristatellus			1	1	1						1	1	1	1	1
Red-billed Starling	Spodiopsar sericeus	LC		1	1	1									-	
Black-collared Starling	Gracupica nigricollis			1						 		· · · · · · · · · · · · · · · · · · ·	 	1	1	1
Blue Whistling Thrush	Myophonus caeruleus		1		 				 		-			 	-	+
Orange-headed Thrush	Geokichla citrina	LC	1		<u> </u>	 			ļ		<u> </u>	A	-		1	1
Siberian Thrush	Geokichla sibirica		1								<u> </u>					
White's Thrush	Zoothera aurea		1	1	-					 		1				1
Grey-backed Thrush	Turdus hortulorum		1	1								1	1	 	1	
Japanese Thrush	Turdus cardis		1	1											1	
Common Blackbird	Turdus merula		1	1							af an ann an far					
Eyebrowed Thrush	Turdus obscurus		1	1	-							 		<u> </u>		
Pale Thrush	Turdus pallidus		1	1						1	<u> </u>	1				-
Brown-headed Thrush	Turdus chrysolaus		1													· · · · · · · · · · · · · · · · · · ·
Dusky Thrush	Turdus eunomus	LC		1	1	1										
Lesser Shortwing	Brachypteryx leucophris	LC	1	1	_						<u> </u>					
Siberian Rubythroat	Luscinia calliope		:	1		 			44.0 (44.44.0.0)			<u> </u>				
Siberian Blue Robin	Luscinia cyane		1													1
Rufous-tailed Robin	Luscinia sibilans		1	1					 			1	 			
Red-flanked Bluetail	Tarsiger cyanurus		1	1						and the same trace		 	<u> </u>		 	
Oriental Magpie Robin	Copsychus saularis		1	1	- 3			-					1	1	1	1
Daurian Redstart	Phoenicurus auroreus	1605	57tu-	1		1	444.0	da vide i		A24,3	<u> </u>		·	4	1	1

English Name	Scientific Name	Conservation Status	FSW	SHG	GRA	DAL	SWG	MAR.	PON:	NWA	Sea	MAN:	BVG	RUD	DVA	WGR
Stejneger's Stonechat	Saxicola stejnegeri			1	1	1	1	1	1		2	3 1		1	1	1,
Grey Bush Chat	Saxicola ferreus			1,	1		 	-	-	 	<u> </u>	 		1	1	1
Blue Rock Thrush	Monticola solitarius	- 		1	1		1:::::						1	ļ. <u> </u>		
Grey-streaked Flycatcher	Muscicapa griseisticta		1	ļ	1				 	 	<u> </u>	-	1		<u> </u>	-
Dark-sided Flycatcher	Muscicapa sibirica		1		1	 	-	-		<u> </u>		 		-	 	-
Asian Brown Flycatcher	Muscicapa dauurica		1	1	1	 		ļ	-			 				
Ferruginous Flycatcher	Muscicapa ferruginea		P	·						<u> </u>		-	in the second	-	-	+
Yellow-rumped Flycatcher	Ficedula zanthopygia		P										2			+
Narcissus Flycatcher	Ficedula narcissina		1	1			-					1				+
Mugimaki Flycatcher	Ficedula mugimaki		1				<u> </u>					1		<u> </u>		+
Red-throated Flycatcher	Ficedula albicilla			1							 					
Blue-and-white Flycatcher	Cyanoptila cyanomelana		1									+		-		+
Verditer Flycatcher	Eumyias thalassinus	•	1	1			-					 				
Hainan Blue Flycatcher	Cyornis hainanus		1	1					5.75		-	 	2			
Small Niltava	Niltava macgrigoriae	1200	1	 								-		<u> </u>		-
Orange-bellied Leafbird	Chloropsis hardwickii	LC	1							1 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m		6 26 - 65 (28 5		2 22		-
Fire-breasted Flowerpecker	Dicaeum ignipectus		1	1						<u> </u>		 			1144	1
Scarlet-backed Flowerpecker	Dicaeum cruentatum		1	1											1.	
Mrs. Gould's Sunbird	Aethopyga gouldiae		P											<u> </u>	-	
Fork-tailed Sunbird	Aethopyga christinae		1	1		·										
Eurasian Tree Sparrow	Passer montanus		:	l	1	1			-		1			1	1	
	Lonchura striata	40		i										1	1	
Scaly-breasted Munia	Lonchura punctulata			1	i				1.						1	
Forest Wagtail	Dendronanthus indicus		P									<u> </u>	1	1		<u> </u>
Grey Wagtail	Motacilla cinerea		:				1	ī	1	1						
White Wagtail	Motacilla alba					1	1	1	1	1					<u> </u>	-
Richard's Pipit	Anthus richardi			1	1	1	-		•	*			29	1	1	1
Olive-backed Pipit	Anthus hodgsoni		1	1	-	- 1		<u>12.1.</u>			<u> </u>			1	•	
	Eophona migratoria	A CONTRACTOR OF THE CONTRACTOR	1	1		* 3.22.250 3.22.3	Sec. 1 April 1			SEAL R	.90 MM -	100,000		k deb.	I .	17,000

K F B G

Publication Series No.12

Ecological and Conservation Importance of Six Sai Kung Country Park Enclaves

English Name	Scientific Name	Conservation Status	FSW:	SHG:	GRA	DAL.	SWG.	MAR	PON	NWA:	Sea	MAN	BVG	RUD	DVA	WGR
Tristram's Bunting	Emberiza tristrami		1	1	\$						<u> </u>					
Chestnut-eared Bunting	Emberiza fucata			P	P											
Little Bunting	Emberiza pusilla				P	P										
Yellow-browed Bunting	Emberiza chrysophrys			P	P									 		
Yellow-breasted Bunting	Emberiza aureola	VU,RC	,		1	1		1								
Chestnut Bunting	Emberiza rutila		P	P						·····				 		-
Black-faced Bunting	Emberiza spodocephala			1	1	1		1	1				1			

Key:

VU – Vulnerable; NT – Near-threatened. These conservation status assessments are provided by IUCN.

LC – Local Concern; [P]RC – [Potential] Regional Concern. Letters in parentheses () indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites, rather than in general occurrence. These conservation status assessments are based on Fellowes et al. (2002).

About KFBG

Kadoorie Farm and Botanic Garden (KFBG) is situated in the rural New Territories, on the northern slopes of Tai Mo Shan, Hong Kong's highest mountain. Two steep spurs enclose its deep-set valley. Within KFBG are streams, woodlands, orchards, vegetable gardens, walking trails, live animal exhibits, floral exhibits, sustainable agriculture demonstration plots, art exhibits, a wild animal rescue centre, a native tree nursery, and, other conservation and education facilities.

In the post-war years, Hong Kong was flooded with destitute refugees. Many had traditional knowledge of crop production and livestock farming but no stock, others had land but no experience. They required support to rebuild their lives. The farm site at Pak Ngau Shek was established in 1956 as a base for livestock breeding and distribution, agricultural research, farmers training, public education and recreation. The barren slopes were terraced and planted with orchards and vegetable gardens. The development of the botanic garden began in 1963 and the plant conservation programme from 1972.

On 20th January, 1995, the Legislative Council of Hong Kong passed an Ordinance (Chapter 1156) incorporating KFBG as a non-profit corporation designated as a conservation and education centre. It is a unique public-private partnership, for while the KFBG Corporation is a public organisation, it is privately funded by the Kadoorie Foundation.

Since 1995, KFBG has been conducting a wide range of nature education, nature conservation and sustainable living programmes both on-site, and, throughout Hong Kong and South China.

In this time of severe global crisis KFBG raises awareness, undertakes rigorous science-based species conservation and ecosystem restoration, and offers new ways of thinking and living to respond to the world's problems. Hence, our work brings hope and improvement by focusing on nature conservation, sustainable living and holistic education that re-connects people with nature. By working together with the public, Governments, academia, NGOs and businesses, we can protect our common future.

Our mission is to harmonise our relationship with the environment. Our vision is a world in which people live sustainably with respect for each other and nature.





KFBG EAP <eap@kfbg.org> 22/11/2013 下午 02:37

To tpbpd <tpbpd@pland.gov.hk>
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dymng@pland.gov.hk
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Subject KFBG comments on the Draft To Kwa Peng and Pak Tam Au
Outline Zoning Plan (S/NE-TKP/B)

Dear Sir/ Madam,

We refer to the Draft Outline Zoning Plan (OZP) (S/NE-TKP/B) for the Country Park (CP) Enclaves at To Kwa Peng and Pak Tam Au, Sai Kung, and the related Town Planning Board (TPB) Paper No. 9441. We would like to launch our objection to this plan and to express our concerns on the information documented in the TPB Paper.

To Kwa Peng

- Paper is inadequate for assessing the ecological importance of the area. Attached please see a habitat map for To Kwa Peng prepared by us. We are concerned that now the proposed Village Type Development (V) zone will affect the woodland and many trees would need to be felled in the future. We consider that the V zone should be greatly reduced and sensitive habitats should not be covered with V zone.
- As mentioned in our Report on six Sai Kung Country Park Enclaves (
 http://www.kfbg.org.hk/content/84/26/2/2013%20KFBG%20Sai%20Kung%20CP%20encl aves%20report%20(pdf).pdf), the riparian area (including the watercourse) of To Kwa Peng provides habitats for the Sesarmine Crab community; the stream estuary also functions as a fish nursery, and provides migratory paths for diadromous species. The importance of To Kwa Peng to Sesarmine Crabs has also been confirmed by the AFCD (
 http://www.afcd.gov.hk/english/publications/publications_con/files/hkbonews letter9.pdf), and an endemic Sesarmine Crab species, Pseudosesarma patshuni, also inhabits To Kwa Peng, according to the AFCD document.

 Now this area is zoned Green Belt (GB). We do not consider that GB can provide sufficient protection to the important habitats; for
- that GB can provide sufficient protection to the important habitats; for instance, barbecue spot is an always permitted use, and small house would be built in this area after the TPB approves the application. Section 8.13 of the TPB Paper mentions: "However, the villagers may apply for Small House development in other zones, including the proposed "GB" zone in To Kwa Peng, which would be considered by the Board on its individual merits."

Pak Tam Au

- The habitat map Plan 2b shown in the TPB Paper is invalid. Attached please see a habitat map for Pak Tam Au prepared by us. A freshwater marsh is located within the proposed V zone. In this marsh, a protected and locally endangered orchid called Liparis ferruginea was found.
- The water bodies (watercourses and ponds) within Pak Tam Au also provide habitats for the Hong Kong Paradise Fish, which is considered to be a key species of conservation concern by the AFCD (

http://www.afcd.gov.hk/english/conservation/hkbiodiversity/speciesgroup/speciesgroup_freshwaterfish.html#key). The abundance of this species is high at Pak Tam Au.

- We are shocked by the fact that the presence of the marsh (and the orchid) and the Hong Kong Paradise Fish, all are of high conservation concern, is not mentioned in the TPB Paper. Obviously, no in-depth ecological information has been provided to support the preparation of the plan.

Our recommendations:

- According to the 2011 census, population at each enclave was less than 50 persons. We consider that the present proposed V zones are too large. We strongly recommend that the V zones should be confined to the existing village settlement and approved small house sites (if any).

 The woodland at To Kwa Peng and the marsh at Pak Tam Au should be covered with Conservation Area (CA) zone. The riparian zones and the watercourses at Pak Tam Au and To Kwa Peng as well as the surrounding areas of the ponds at Pak Tam Au should also be covered with CA zone. Only by doing these the species of conservation concern aforementioned can be appropriately protected.
- Under the proposed GB zone, the terms "Barbecue Spot",
 "Picnic Area", "Public Convenience" and "Tent Camping Ground" should be
 transferred from Column 1 to Column 2 in the Schedule of Uses of the OZP.
 This will help to impose stricter planning control on these activities and
 their pollution impacts.

The 2010 Enclave Policy, the Ombudsman and the Audit Commission have all requested that Country Park Enclaves should be better protected, not better developed. Besides the fact that the V zones are too large (e.g., with no scientific justification to support the Small House demand), we are also disappointed that even important habitats and species are not considered in the plan. We thus launch our objection against this OZP and we urge that the OZP must be revised.

Thank you for your attention.

Best Regards,

Ecological Advisory Programme
Kadoorie Farm and Botanic Garden

cc.

- Chief Executive, Secretary for Development, Secretary and Under Secretary for the Environment, Director of Agriculture, Fisheries and Conservation.

 Director of Environmental Protection
- Legislative Council Members: Hon CHAN Chi-chuen, Dr Hon Kenneth CHAN Ka-lok, Hon CHAN Yuen-han, SBS, JP, Hon Cyd HO Sau-lan, Hon WU Chi-wai, MH Countryside Foundation, Save Our Country Park Campaign

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21/11/2013 F4 06:40

传送日期: 主旨:

Urging the protection of Country Parks from development [#Michael Vidler]

tà:

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Save Our Country Parks

Email: saveourcountryparks@gmail.com

Subject:

The protection of country parks from development in Hoi Ha, Pak Lap, So Lo Pun and other enclaves

Dear Mr. Leung, Mr. Wong, Mr. Chan, Mr. Wong, Mr. Tang, Mr. Ling, Ms. Linn, Mr. Chow, and Members of the Country and Marine Parks Board and Town Planning Board,

The Endave Policy

At the time the country park was set up, , the villages and private land enclosed within were not listed as part of the country park premises due to the laziness of government to do the administration work. Enclaves are therefore not subject to the projection of the country park. The legacy of such measures gives rise to a series of problems concerning the use of the Enclaves.

After the 2010 Tal Long Sai Wan event, the Government and the public realised that these Enclaves should be better protected; the Ombudsman and the Audit Department also made similar requests afterwards. The endaves are physically, ecologically, geologically, aesthetically, and from a landscape and recreational point of view, fully connected with their surrounding Country Parks (CP). The 77 enclaves identified in 2010 cover an area of 2,067ha.

However, despite promises to the contrary, only 11% of the enclaves will be subject to scrutiny by the Country and Marine Parks Board (CMPB), and for 89% of the enclaves development can proceed without any scrutiny by either the CMPB or the Town Planning Board (TPB) for the V-zone within these enclaves.

This loophole is unterly ridiculous and unacceptable. A recent report released by the Audit Department also criticizes the Agricultural, Fisheries and Conservation Department of its lax surveying around the country park and the delay of the Enclaves protective measures. The report attributes the insufficient protection to the Enclaves and the country park to these bureaucratic failures.

To know more about the risks of Country Parks, please go to Country Parks lack protection from development in enclaves"

- A) We call upon the Chief Executive, the Government, CMPS and TPB to agree Individually and jointly on the following actions to protect our Country Parks:
- To incorporate endaves into their surrounding CP and to place them under the control of the CMPB
- To extend the DPA plans for at least one additional year to allow the process of incorporation of enclaves into CP to be completed
- To categorically deny new roads to enclaves currently not serviced by roads
- To promote and facilitate uses of private land which enhance the ecology, agriculture, landscape and amenity value of country parks
- To ensure development and infrastructure projects in enclaves are designated projects under the EIAO
- To subject District Lands Offices, Planning Department, AFCD, CMPB and Town Planning Board to oversight by an Independent committee of Legop, at least one of whose members should be a senior ICAC Officer.
- B) Considering that case like Hol Ha, Pak Lap and So Lo Pun, the DPA plans have expired, fail of time allow for incorporation into CP and O2Ps are needed. We call on the Planning Department and Town Planning Board to enhance the draft Outline Zoning Plan with strict additional measures of control to conserve the natural habitat, landscape resources and rural and natural character of the country park:
- To limit the areas zoned for VTD to existing built structures plus a reserve for approved small house applications only To move "houses" and "small houses" from column 1 to column 2 in the Schedule of Notes to ensure that any and all
- demolition and (re-) development of houses is subject to planning permission - No future development under the SHP in the enclaves and CP
- To create a layout plan for each endave with consensus from the public including stakeholders.
- C) We object to the following statutory plans and propose various changes to the Outline Zoning Plans needed to protect the Country Parks

Draft So La Pun Outline Zoning Plan (S/NE-SLP/1)

- The enclave should be fully incorporated into the Plover Cove Country Park

- We object to the large V-zone for 134 houses and the planned population of 1,000. According to the 2011 census the population at So Lo Pun was """ and there are no outstanding small house applications. There is no road connection or public sewerage, and the area has a high landscape and ecological value. The V-zone should be limited to existing
- We object to the Green Belt zone. The upper section of the So Lo Pun Stream and its riparian zone (30 m from each side of the stream) should be covered with Conservation Area zone to protect the high ecological value of the stream and associated wetland.
- "Barbecue Spot", "Picnic Area", "Public Convenience", Agricultural Use and "Tent Camping Ground" should be transferred from Column 1 to Column 2 in the Schedule of Notes which needed to seek approval from TPB.

Draft Pak Lap Outline Zoning Plan (5/5K-PL/1)

- Pak Lap should be incorporated into the Sai Kung East Country Park.

- We object to the large V-zone for 79 small houses and the planned population of 230. According to the 2011 census, the population at Pak Lap was less than 50. There is no vehicle access and no public sewerage. The V-zone should be limited to existing structures and approved small house applications.

- Pollutants entering Pak Lap Wan will impact the habitat of the amphioxus (lancelet) - a marine species of high conservation value. The Pak Lap Stream and its riparian zone (30 m from each side of the stream) and the habitat for Water Fern should be covered with Conservation Area.

Draft Hoi Ha Outline Zoning Plan (S/NE-HH/1)

- The endave should be incorporated into the Sal Kung West Country Park

- We object to the large V-zone for 63 houses, and the planned population of 590. According to the 2011 census, the population at Hoi Ha was 110 persons. There is no public sewerage and the provision of a private sewerage treatment plant is unrealistic. There have been 7 approved small house applications in the last 18 years. The V-zone should be limited to existing structures and approved small house applications.

- The provision of Individual Septic Tank Systems for every house built in the V-zone in accordance with EPD policy has the potential to pollute Hol Ha Wan, severely damage the marine environment and render the beaches unsafe for public

- As planning permission for construction of Small Houses in Green Belt is regularly granted, we object to the Green Belt zoning of the riparian area of the Hoi Ha Stream. Pollutants by permitted activities will affect the ecological value of the Stream and Hoi Ha Wan Marine Park and SSSI.

"Barbecue Spot", "Picnic Area", "Public Convenience", Agricultural Use and Tent Camping Ground" should be transferred from Column 1 to Column 2 in the Schedule of Notes which needed to seek approval from TPB.

Pre-draft To Kwa Peng and Pak Tam Au Outline Zoning Plan (S/NE-TKP/B)

- The endave should be incorporated into the Sai Kung East Country park.

- The V-zone should be limited to existing structures and approved small house applications.

- Green Belt (GB) provides insufficient protection for the stream running to the proposed Coastal Protection Area zone on the western side of the area. This stream and its riparian zones also support a diverse Sesarmid Crab community. We urge for all stream and riparian area zoning to be changed to Conservation Area to secure the environmental value of the
- Water bodies (e.g., pools) and watercourses at Pak Tam Au provide habitats for the rare Hong Kong Paradise Fish, a species of high conservation concern. Now these waterbodies and watercourses are next to or even covered by the Village Type Development zone. This would seriously threaten the habitats for this species. We consider that these habitats and their surroundings (minimum distance 30 m) should be covered with Conservation Area zone.
- -There is a freshwater marsh on the northeastern side of the Village Type Development zone of this enclave. It contains a locally endangered and protected Orchid species, Liparis ferruginea. We consider that this marsh should be covered with

Further comments:

Best Regards, Michael Vidler

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:w

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題目:促請政府保護如野公開不受與當效股破壞

不要這些是破壞如野公園 一保造海下、白體·頒歷盆及所有「不包括土地

敬啓滑:

本人無以此兩表空支投保證郊野公園及反對發展「不包括土地」的想法。

「不包括土地」政策

当年政府建設郊野公园,因行政方便,被郊野公园包园的村在或私人土地,都没有被入到野公园保證,近成「不包括土地」 的愈岌涸洞,虹下隐至。

2010年為逐城在西貫大心西灣悍然超级建居。污染破壞生境。事件令政府及市民歷費實證到需要有切實的行動和政策保證 郊野公園內的「不包括土地」、不課知野公開的生境受無秩序的振發式開發所污染或破壞。

其後・中郎等員公署及審計署亦已作出同樣要求・這些「不包否土地」姚論地理、生服、地質都與郊野公園緊受相違、符相 當的景觀和康樂價值·線當年的統計·77個「不包括土地」的面積共約2,067公頃·

可悟,政府现际的實際從法已渐令尚况失控:只有11%的不包括土地會國人邓亚公园範围,其餘89%內的鄉村式用地將會 不受刘野公园委团曾及城市观到委员會(城却會)监督,经些地方将来很有可能曾被村屋覆盖。

我们不接受此等荒謬情况。据计智量近的现在贸易通过智量如野公园的巡查保急不足,「不包括土地」的保證指宽滑後,未 **能有效保證「不包括土地」和歌呼公園**。

若域了顏更多的野公國現所面對的歐脅,謂到《如野公园的危程:肆意險展「不包括土地」》

- A)我们在此汉宋特首、政府、邓罗公园及海岸公园委员會及城境含承诺執行以下指版保护政府公园: - 必須將所有「不包括土地」納入所在的郊野公園範圍內·
 - 為有更充裕的時間將「不包括土地」納入郊野公園·「發展審批地區圈」的如限德廷長一年

- 在郊野公园範囲內·不應原理新的汽車這路以連接「不包拉土地」 - 鼓勵私人土地用於提高邓斯公园的生態、展樂·景觀和遊樂信值

- 必须將「不包括土地」內的所有發展和菩萨建設項目都列為「惡境影響評估條例」下的指定工程項目
- 地政分英處、規劃等、漁港處、郊野公園及添岸公园委員會及稅與會應受立法會獨立委員會監察,其中一名成員必須爲嚴 政公園高級戰員
- B〉多個「不包括土地」如海下、白脂及銀銀盆的「發展零批地質層」已到期限,但仍未被劃入郊野公園範圍而需要以 「分區計劃大調草園」讓政府超續監察及管理土地規劃。因此,我們要求規劃者及地次會侵化分區計劃大調草圖以其正郊野 公園的保護自然發地、天然資初及物效特色:
 - 限制「鄉村式發展」用地於现有建築及已批准的小型屆子申請範圍
- 把「屈字」及「医字(只顺新界份免售制屋字)」從註釋的第一擴移至第二欄,並確保任何房屋折風、重建或與產鄰必須 受規管

- 「不包括土地」及郊野公园的土地不應再用以滿足無止短的在屋帶求 • 與市民及相關人士商證 • 共同設計不包括土地內的設施

我們反對以下法定圈則,並認為各分區計劃大調草圈應作出以下修訂,以保護的時公園:

超越盆分配計劃大調單图(S/NE-SLP/1)

- 銀晒盆匠完全納入船两郊野公园·

- 致們反對足以容約134間村屋的「鄉村式發展」規劃,且並不管成規劃署爲鎖歷公正立約與1000人的規劃人口,根据2011 年的人口普查·超越盘的人口爲0,亦一证沒有小型屋字中語·該地具有高景觀和生態價值·沒有汽車道路運要求公共污水 收集系統。「鄉村式發展」應限制在現有的建築物。
- 我們反對觀羅盆河和河岸帶(河岸两分30米範囲)的綠化地帶,該河流上游具高生態價值·鎮羅盆河和河岸帶應列爲「日 然仅育园」以保護河流和下遊的「自然保育區」。
- ~在終化地帶下的「然均地點」、「野餐地點」、「公園設施」和「氨基首地」應從世界的欄1轉爲機2·使送些用途受城 规含密管。

日脑分延計劃大調草同(S/SK-PL/1)

- 自胎應完全納入內百束攻野公岡。

- 我們反對足以容納79間村屋的「鄭村式發展」、且並不賀成姚卿容為白眉及立約為230人的規劃人口・根據2011年的人口 省在·自陷的人口少於50·該地沒有汽車道的連接或公共污水收集系統·「從村式發展」 彪限制在现有的建築物及已經此 准的小型圖字中訊地。
- 遊入白ा國的行政物育影響高保育價值的物種交員集的接足地·白暗河和阿岸帶((河岸阿芬30米距留)應列爲「自然保育區」以保護河流:另,在白崎出现的稀有植物水底的標地水應受「日然保育區」保護。

浴下分医計劃大調章同(SYNE-HH/1)

· 海了經完全納入西貝西郊野公園。

- 我們反對足以容納63間村屆的「銀村式發展」,且並不營成規劃著戶海下定立約於590人的規劃人口。根據2011年的人口 答查,海下的人口只有110人,逐地没有公共污水收集系統,批准级展是不管的。「鄉村式發展」即原創在現有的是变物及 已經批准的小型圈空中訪地。
 - 現以村落沒有公共排的系統,所有國子均使用低規格的化眾池,極有可能污染海下灣,磁音市民的安全。
- 過去15年已有7個村風發准與建,而數據如示,城場會推准在綠化地帶壓壓的信況歷見不幹 我們反對特無下的河岸區及 资水泥地割危終化地帶·我們對之及處人類活動的污染物合磁浸的就及海下灣海岸公园的生態。因此海下河岸帶(河旁30 米範囲)及淡水泥地應列為「自然众育區」。
- 。在綠化地帶下的「德姆地點」、「野營地點」、「公園設施」和「輕某客地」原從在程的欄1轉為關2,使這些用途受換

· 初步發網的土瓜坪及北海凹分區計劃大調華國(5/NE-TKP/8)

- 土瓜坪及北深凹處完全的入四百束刘野公園。

- 「終化地帶」不足以仍護土瓜坪西則的河流,人類活動的污染物會嚴緩河流,到出的紅樹林與海早及鹽區的海岸仍豐區;
- 此河及其兩岸亦有從高的相手壁多極性・因此,此河和共河岸帶(河岸兩河30米範囲)歷列爲「自然保育區」。
- 現時在北海四「鄉村三敦展」地區的東北部将一峽水濕地·內布受法例保護且在本地頭危的統色平耳茲(一個關花)·図此,我們跟為這漢水湖地應到為「自然保育區」。

翼他意見:

此致

香港特別行政區行政長官梁振英先生 環境局局長黃錦星先生 發展局局長陳茂波先生 汕風自然歷到著書長黃志光先生 邓野公园及海岸公园委员會主席团受成先生 城市税额交員會主席周空明先生 規劃署署以凌云勁先生

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Dear Sir/Madam,

Comments on Draft To Kwa Peng and Pak Tam Au Outline Zoning Plan (OZP) (No: S/NE-TKP/B)

The Conservancy Association (CA) would object to the Draft To Kwa Peng and Pak Tam Au Outline Zoning Plan (OZP) (No: S/NE-TKP/B).

To Kwa Peng

CA strongly objects that the proposed "V" zone which is too large in size. Such a large size of "V" zone is still not well-justified, despite the initiative by departments to challenge the updated 10-year demand forecast figure, as there were no population in To Kwa Peng. We especially note that the west of "V" zone covering secondary woodland would involve massive tree felling and greatly reduce both landscape and ecological value of the existing site. We consider that the "V" zone should be greatly reduced to cover merely the existing building

structure and any sensitive habitats should not be covered with "V" zone.

CA should remind that the large scale land excavation and vegetation clearance work had been discovered in the proposed "V" zone in To Kwa Peng before the gazettal of DPA Plan. The proposed "V" zone would encourage "destroy first" approach to reduce ecological value to get favourable development in OZP.

The provision of "GB" zone in the riparian zone is still not adequate to safeguard the stream ecology. Section 8.13 of the TPB paper even hints that "the villagers may apply for Small House development in other zones, including the proposed "GB" zone in To Kwa Peng, which would be considered by the Board on its individual merits". We could foresee that the riparian zone would be adversely affected by land formation and excavation work during construction period. Absence of proper drainage and sewerage system with reference would pollute surface runoff, render adverse impact on the stream, and ultimately affect species of mangrove and seagrass in the mudflat. To kill hopes for small house application so that it should be rezoned to "CA" zone to reflect conservation as the main planning intention.

Pak Tam Au

Again CA would strongly object to the proposed "V" zone which is too large in size. We disagree with the intention of Planning Department to propose a large "V" zone to accommodate potential cross-village application generated from To Kwa Peng since, as said above, the small house demand from To Kwa Peng is still not justified. We consider that the "V" zone should be greatly reduced and any sensitive habitats should not be covered with "V" zone. In particular, all watercourses, freshwater marsh and seasonal wet grassland should be excluded from the proposed "V" zone and protected by "CA" zone instead.

To protect high ecological and landscape value of the subject site and also the surrounding Sai Kung East Country Park, CA opines that country park enclaves like To Kwa Peng and Pak Tam Au should be included in Country Park.

Yours faithfully,

Ng Hei Man

Assistant Campaign Manager

¹ Kadoorie Farm and Botanic Garden, 2013. Ecological and Conservation Importance of Six Sai Kung Country Park Enclaves. Kadoorie Farm and Botanic Garden, Hong Kong Special Administrative Region. 108pp.

Supply and Demand of Small House

Table 1: Supply and demand of Small House on OZP No. S/NE-TKP/B

Village	Small House Demand Figure in 2010		Small House Demand Figure in 2013		'VE'	"V" zone on	Required	Available Land to	Percentage
	Outstanding Demand	10-year forecast (2010 – 2019)	Outstanding Demand	10-year forecast (2013 – 2022)	Area (ha)	draft OZP (ha)	land to meet new demand (ha)	meet new demand figure (ha)	of the new demand met by available land
To Kwa Peng	72	30*	72*	60*	5.23	1.94	2.55	0.97	38%
Pak Tam Au	14	> 25*	11*	100*	3.74	3.64	0.90	1.84	204%
Total	86	> 55	83	160	8.97	5.58	3.45	2.81	81%

Table 2: Supply and demand of Small House on OZP No. S/NE-TKP/C

Village	Small H Demand Figu		Small House Demand Figure in 2013		'VE'	(CN 72)	Required		Percentage
	Outstanding Demand	10-year forecast (2010 – 2019)	Outstanding Demand	10-year forecast (2013 – 2022)	Area (ha)	"V" zone on draft OZP (ha)	land to meet new demand (ha)	to meet new demand figure (ha)	of the new demand met by available land
To Kwa Peng	72	30*	72*	60*	5.23	1.94	2.55	0.97	38%
Pak Tam Au	14	> 25*	11*	100*	3.74	3.40	0.90	1.65	183%
Total	86	> 55	83	160	8.97	5.34	3.45	2.62	76%

When considering the land use zoning for the "V" zone, it is noted that no justification has been provided by the IIRs for the substantial increase in the latest 10-year forecast. In such circumstances, the updated outstanding demand in 2013, i.e. 72 for To Kwa Peng and 11 for Pak Tam Au, and the previous 10-year forecast provided in 2010, i.e. 30 for To Kwa Peng and 25 rather than "over 25" for Pak Tam Au, are adopted as the total Small House demand figures in preparation of the draft OZP.