

Amendment of Plan under Section 12A of Town Planning Ordinance

Proposed rezoning for a piece of Government land from Green Belt to Conservation Area on the Northeast of Wo Tin, Mui Wo

Mui Wo North Outline Zoning Plan (S/I-MWN/1)

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CONTENT

1. Introduction	P.1
2. Background	P.2
3. The Applicant, Authorised Agent and Consultant	P.6
4. Site Context	P.6
5. Rezoning Intention	P.9
6. Proposed Amendment	P.10
7. Verification Survey	P.11
8. Planning Justifications	P.12
9. Conclusion	P.18
10. References	P.19
11. Appendices	P.20

1. Introduction

1.1 On 29 April 2022, a Town Planning Board (TPB, or the Board) hearing was held for considering the representations and comments regarding the Draft Mui Wo North Outline Zoning Plan (OZP)¹. During the meeting, Mr. Paul Melsom presented his views on a piece of land proposed to be zoned as Green Belt (GB) near Wo Tin, and recommended to rezone this place to Conservation Area (CA) as it contains many native trees, including many rare species, which were planted in the area around 20 years ago. Although his representation/ comment was not upheld by the Board, the following was mentioned in the meeting minutes:

*'118. Some Members appreciated R10/C5 (Mr. Paul Melsom)'s expertise as well as persistence and passionate effort in re-forestation in Wo Tin and Tung Hang Mei over the past 30 years. However, Members in general considered the information submitted and presented by R10/C5 inadequate to justify the rezoning of Wo Tin and Tung Hang Mei from "GB" to "CA" zone. Notwithstanding that, Members considered the rezoning proposal would be worth studying further by the relevant government departments and further amendment to the OZP might be submitted to the Board for consideration in future if considered appropriate. Meanwhile, relevant departments should monitor the area to ensure there was no eco-vandalism.'*¹

1.2 In this regard, we thank the Board for offering a window of opportunity to explore this possibility, and in response to this, Designing Hong Kong (DHK) and Kadoorie Farm and Botanic Garden (KFBG) decided to work with Mr. Paul Melsom to submit a rezoning application to turn the area of concern from GB to CA in order to reflect its uniqueness and help the authorities to protect it.

2. Background

2.1 From over 20 years ago, during the years of 1999, 2002 and 2003, Mr. Paul Melsom started to reforest the application site with the help of volunteers. In the first year, tree seedlings were donated by the Agriculture, Fisheries and Conservation Department (AFCD), and later the tree nursery of KFBG became the source of tree seedlings. Species provided by KFBG (starting from 2002) are all native, including many species of conservation significance. As specified above, reforestation at the application site was initially carried out in three years, but since 2004 the project shifted further north and east into the then-proposed Country Park (extension) area and is still ongoing. After planting the newly planted trees at the application site, the tree seedlings were continuously maintained during the initial planting period by Mr. Paul Melsom and his volunteers, and the site is now largely covered with dense woodland (see **Figure 1** below). Without the subsequent management and maintenance (including watering, weeding and installation of tree guards), we do not believe that many of the seedlings planted at the site would have been able to survive until now, especially the rarer species. Aerial photos showing the appearance of the site at different time points are presented below.

Figure 1. Aerial photos taken in various years. The proposed rezoning site is approximately marked by the red line.

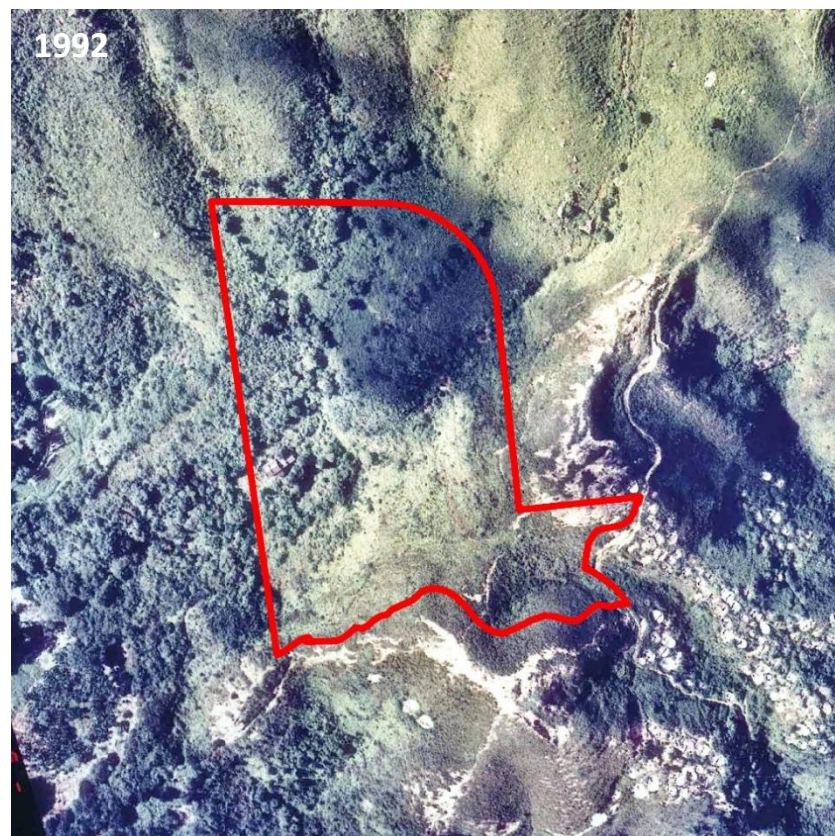
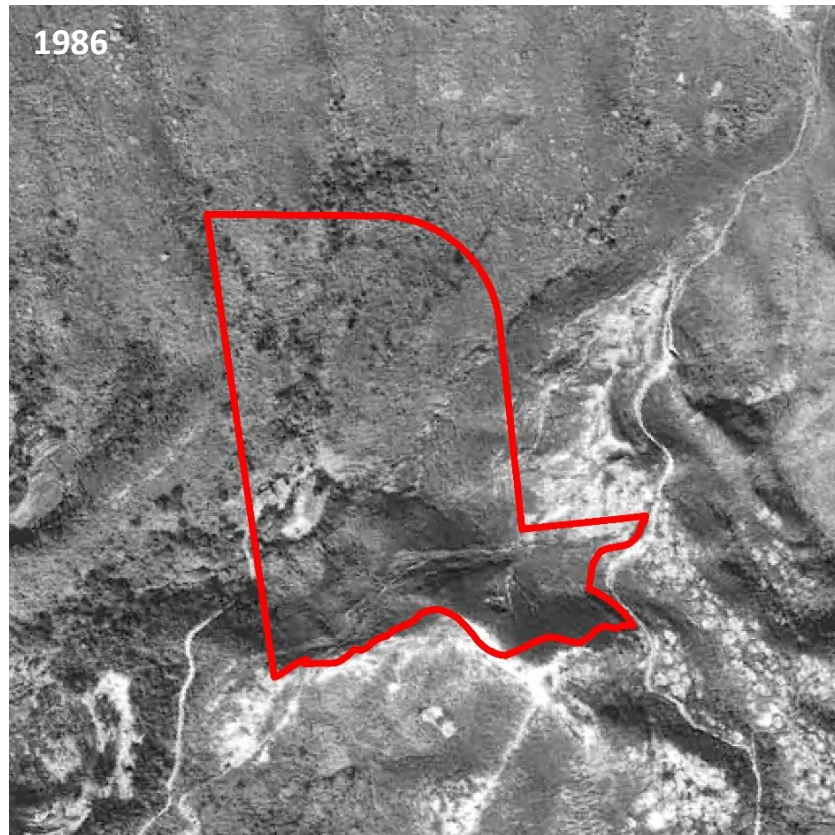


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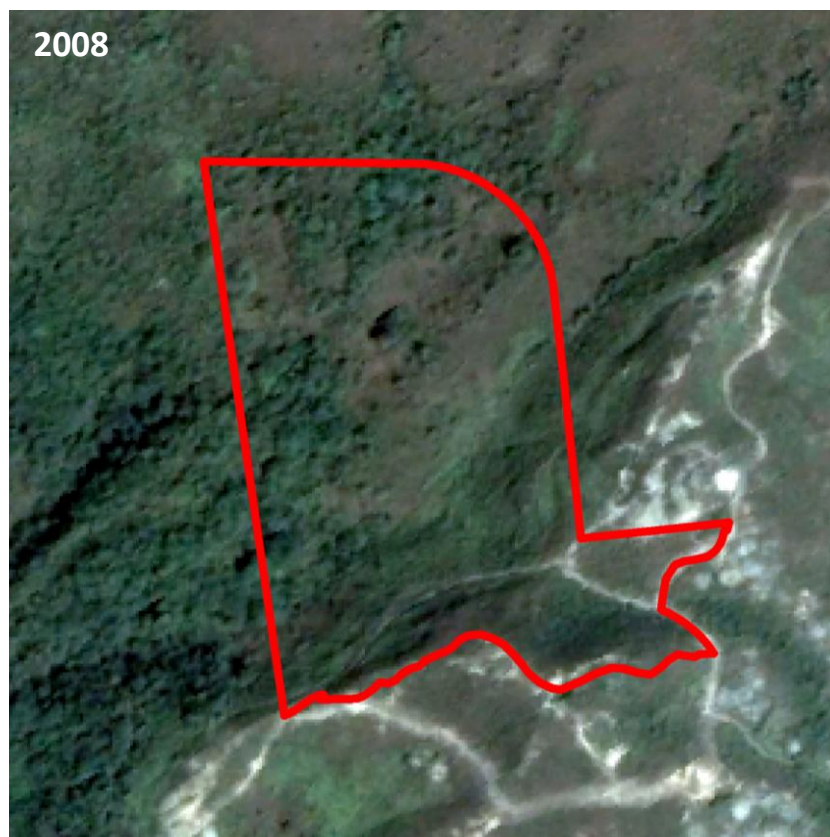
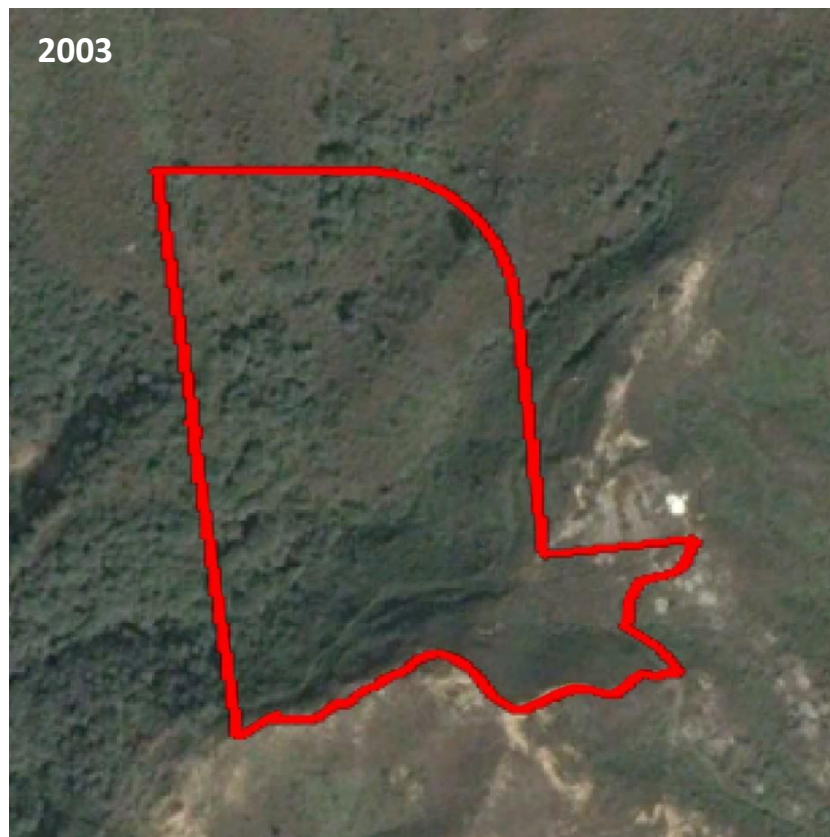


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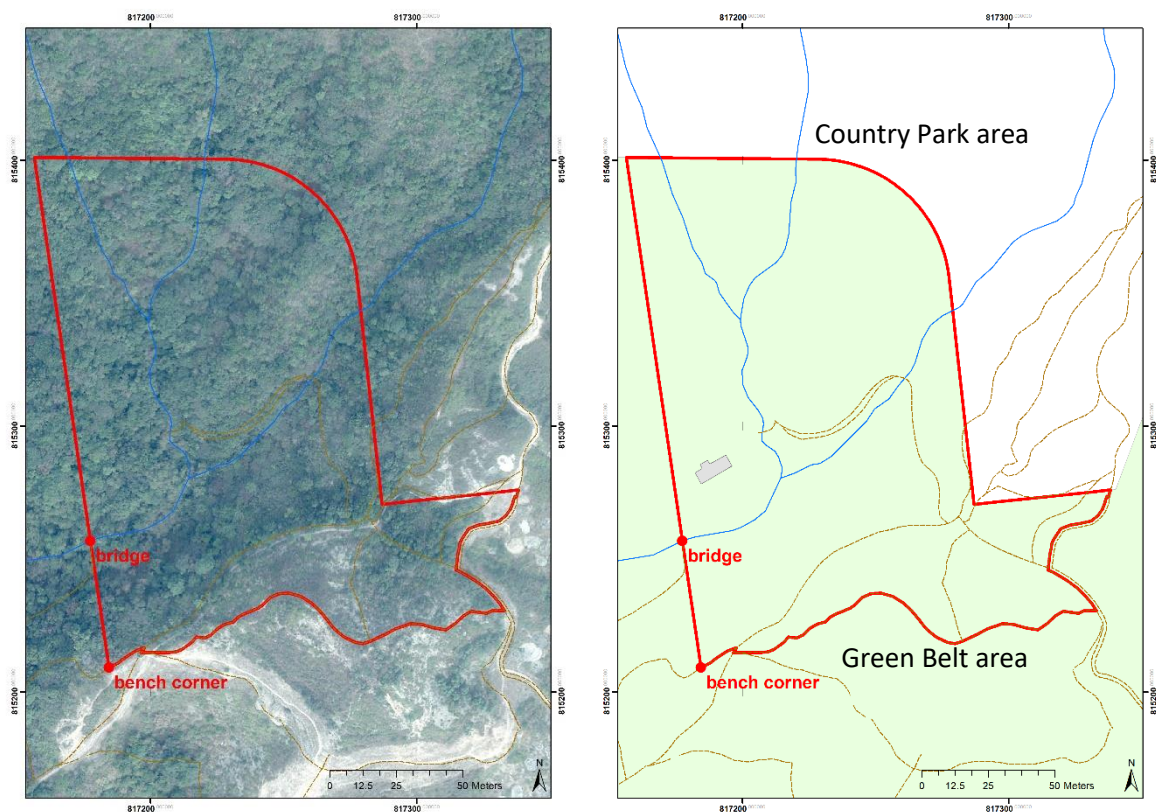
3. The Applicant, Authorised Agent and Consultant

3.1 Mr. Paul Melsom, who is the person in charge of the restoration project and also a resident in Mui Wo for over 20 years, is the Applicant for this application. DHK is the Authorised Agent, mainly involved in the administration of the application, and KFBG is responsible for providing independent scientific review, including conducting verification surveys at the site and producing relevant maps showing precisely the location of the application site. Both DHK and KFBG are working on a voluntary basis. The present planning statement was jointly compiled by Mr. Paul Melsom, KFBG and DHK.

4. Site Context

4.1 The area of the site is around 21,312 sq. m. The exact location and boundary of the site is shown in **Figure 2** below and **Appendix 1**. It covers the upper part of a valley to the northeast of Wo Tin, Mui Wo, Lantau. In addition to covering the main reforestation area, the site is also demarcated by making reference to existing boundary and features (e.g., footpaths shown on Government's map) to avoid confusion (see below paragraph).

Figure 2. The application site (exact boundary marked by the red line).



4.2 The northern and eastern sides of the site is bounded by the boundary of the Lantau North (Extension) Country Park (or the Draft Mui Wo North OZP itself). Boundary on the southern and southeastern sides tallies with the footpaths marked on Lands Department's map. The western boundary is a straight line starting from an existing bench (HK80 coordinates: Easting (m) 817184.3; Northing (m) 815209.1; **Figure 3**) at the hill top on the south, passing through an existing foot-bridge (**Figure 4**; which is also shown in the Lands Department's map) and extending all the way north to the boundary of the Country Park.

Figure 3. The bench at the southwestern tip of the application site.

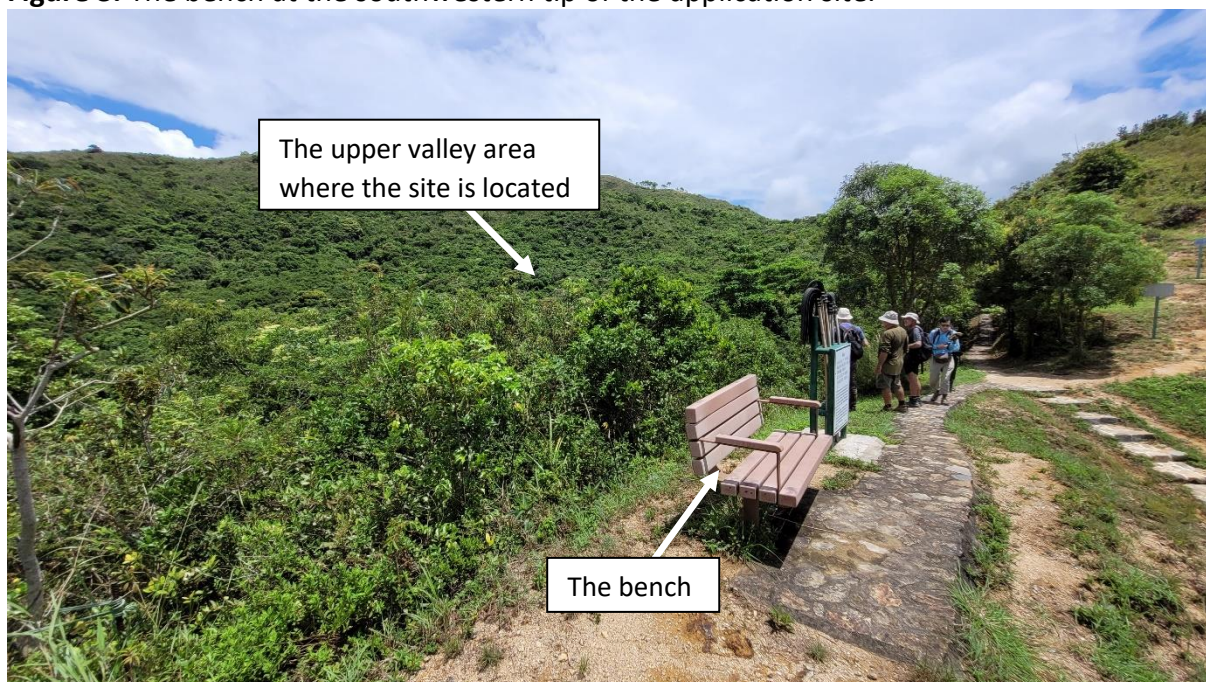


Figure 4. The footbridge, which is also marked on the GeoInfo Map.



4.3 According to the information gathered from the GeoInfo Map of the Lands Department, there are no private land lots or permitted burial ground within the application site. There is an abandoned house (**Figure 5**; location shown at **Figure 4**, which is marked as 'ruin') and two points marked as 'grave' as shown in the GeoInfo Map within the site, but they are now already covered by the existing GB zone, and the graves could not be observed during our site visits. No obvious and recent large-scale human activities (e.g., farming) could be observed within the site during our visits or from desktop surveys (e.g., checking aerial photos; see above **Figures 1 and 2**). Thus, at present, the entire site does not seem to be under any active use. If the rezoning application is successful, the CA zone will be completely bounded by Country Park and GB zone; it would not be adjacent to any existing development zonings, including Village Type Development zone.

Figure 5. The abandoned house within the site, which is marked as 'ruin' in the GeoInfo Map of the Lands Department (see **Figure 4**).



5. Rezoning Intention

5.1 The application site is now covered by the extensive GB zone under the Draft Mui Wo North OZP. Although it only covers a small area within this GB zone (**Figure 6**), we consider the site to be unique and differ significantly from the rest of the zone, from a conservation perspective. This is the result of the reforestation effort and subsequent initial management by Mr. Paul Melsom and his volunteers. Thus, to appropriately reflect its true value and its distinction from the rest of the GB zone, we consider it important to specially upgrade the zoning of this particular area and to clearly mark its location by an upgraded zoning, thereby more precisely reflecting its outstanding ecological significance. Its importance and uniqueness are to be further elaborated in the below Section 8 ‘Planning Justifications’.

Figure 6. Location of the application site within the Draft Mui Wo North OZP (approximately marked by the red line and the arrow).



5.2 Furthermore, although there is a general presumption against development within GB zone², many housing development proposals targeting GB zones have been approved in recent years, such as those GB rezoning proposals involving well-wooded areas in Ma On Shan, Tseung Kwan O, etc. In addition, several transportation improvement proposals have been raised in Lantau recently³. Although some of these proposals involve only tunnels and may thus not directly affect above-ground vegetation, we consider underground development would nevertheless impact the underground water table and so impact drainage patterns, thereby affecting streams and wetlands, and so indirectly impact above-ground vegetation. Slope stabilisation works would also sometimes need to be carried out in hilly terrains by relevant authorities.

5.3 Since the site is of unique conservation importance, we recommend it is essential to clearly demarcate the area, with a view to informing everyone including the works authorities (such as authorities responsible for slope stabilisation) and the general public that the site is of special conservation importance and should receive a higher level of protection and attention, formally through a statutory process. Indeed, this can also help relevant authorities to monitor the site (e.g., we consider a clearly marked CA with the precise coordinates/ landmarks as mentioned in the current application can at least help them to locate the area), which was a request made by some TPB members¹. Thus we propose to rezone the site from GB to CA to fulfil all the above purposes. We hope that in the future everyone, including the works authorities, would be able to note (and pay attention to) the special value of the site and its precise location (i.e., a CA zone clearly marked on the OZP). We also hope rezoning this site will enable all parties to avoid carrying out any works/ activities that would negatively impact the regenerated forest, so as to allow the replanted native trees, as well as the associated naturally recovered wider ecosystem, to further mature.

6. Proposed Amendment

6.1 We propose to rezone the area as shown in **Figure 2** from GB to CA. We would like to emphasise that the present application site is smaller than the area proposed to be rezoned by Mr. Paul Melsom during the TPB hearing on 29 April 2022 (i.e., only about one-third of the original area).

7. Verification Survey

7.1 For this rezoning proposal, the site was visited by KFBG's experts twice. The first visit was conducted on 22 July 2022 mainly to inspect the site and the second visit was conducted on 18 August 2022 for demarcating the area, verifying the tree and shrub species within the site and reviewing the conservation importance of the site. With help from Mr. Paul Melsom and his volunteer, the first site visit was conducted by a Senior Ecologist of the KFBG; in the second visit, besides the personnel above, a GIS Specialist, a Restoration Ecologist and the Head of the Flora Conservation Department of KFBG also participated. Coordinates and the boundary were marked in-situ using GPS (Trimble Geo7X with RTK correction).

7.2 A total of 86 species of native tree/ shrub were identified within the application site. 20 of them are considered to be species of conservation concern (e.g., restricted in distribution and/ or locally rare, as assessed by local experts/ authorities, or otherwise nationally important/ threatened or globally threatened). 55 species of the surveyed trees within the site are producing fruits (and thus also seeds) and 10 are of conservation concern. Furthermore, we could see that some of the seeds produced were germinating at the site and a second generation of some of the planted species could be observed. The list showing these species is given in **Appendix 2**.

7.3 We estimated the height of 67 selected individual trees (mainly species of conservation concern/special interest). Some of these trees were found to exceed or reach 10 m in height. We also marked the locations of these 67 trees. **Appendix 3** provides the heights and the coordinates of all these individuals.

7.4 In general, the inspected trees are in very good health. Many trees are of significant size and are very vigorous. There are also several smaller individuals, but this just reflects the slower growth rate of these species. Many species that can be very difficult to plant, grow and establish in the wild could also be identified within the application site. The site at present can be considered to be covered with a unique and highly diverse native young secondary woodland.

8. Planning Justifications

8.1 We consider the application site to be of unique conservation and educational significance and definitely worthy of being upgraded to CA zone. Specific justifications are provided below.

Accelerating and transforming the forest regeneration pattern – a local showcase of ‘Ecological Restoration Area’

8.2 Virtually all of Hong Kong’s forests were completely decimated through logging and fire between approx. 400 to 800 years ago⁴, leaving many native plant species on the brink of extinction and their habitats severely degraded and eroded. In many cases, the remaining trees are unable to recover naturally because the animal species that would have formerly aided the dispersal of their seeds have become locally extinct. This means that many rare and protected trees are nowadays unable to regenerate and spread by themselves. These species can only survive and recover through dedicated, high quality restoration projects such as the present one.

8.3 In addition to severe deforestation over a period of centuries, the current application site has also suffered in recent decades through recurrent hill fire, leaving an extremely reduced biodiversity and predominantly eroded, very poor mineral soils with virtually no organic matter, which are required for healthy plant growth.

8.4 Through the effort of Mr. Paul Melsom and his volunteers starting from around 20 years ago, however, the site has been gradually turned into a flourishing secondary woodland comprising many native species, many of them extremely rare in Hong Kong today. KFBG’s experts consider that this would never have happened if not for the efforts of Mr. Paul Melsom and his volunteers.

8.5 More importantly, KFBG's experts consider that this is not simply a tree planting site; more precisely, the application site should be considered a very successful 'Ecological Restoration Area'. As mentioned above, at least 86 tree species were identified within the site (i.e., 60 species were planted and not naturally occurring at the application site; 14 were planted and also naturally occurring at the site; and 12 are growing naturally at the site). The diversity and ecological value of these trees is remarkable. For instance, species of conservation concern such as *Ormosia pachycarpa* and *Castanopsis concinna*, which cannot be easily planted in many other places, were found thriving at the site. In fact, adequate and subsequent maintenance is essential for the survival of these species; without the effort of Mr. Paul Melsom and his volunteers (including the provision of tree guards, weeding and manual watering, i.e., carrying buckets filled with water by hand up to the site), the seedlings of these and many native tree species of conservation concern would not have been able to survive, owing to their sensitive habitat requirements.

8.6 The view of KFBG's experts is that the tree composition now observed within the site could not normally be found in areas with a similar site history in Hong Kong, and it would also not be possible for a self-regenerated woodland to contain such a species composition. For example, other areas within the same GB zone under the Draft Mui Wo North OZP, even though they may appear to be well-wooded, do not contain such rich plant communities, mainly because there are no parent trees available anywhere in the area as a seed source for recovery. This is true for the vast majority of tree species now found within the application site. As such, the application site represents an exceptional, unique role model for how forest restoration (to restore and enhance species diversity and thus support re-establishment of a more diverse ecosystem) should be done in Hong Kong, and the existence of flourishing individuals of many unusual species also indicates that planting of these species, usually considered to be difficult to grow in many places, is possible. The efforts by Mr. Paul Melsom and his volunteers demonstrate how this can be achieved.

8.7 The diversity of tree species present at the site is much broader than typical secondary native shrubland or woodland in Hong Kong. Secondary native associations commonly seen at low to mid-elevations in Hong Kong are seriously depleted of species diversity, as compared with pristine or only moderately disturbed forests in the region. Whereas authentic primary forest in South China can contain > 100 different tree species, Hong Kong's secondary forest associations are usually dominated by just one or a few. The 80+ species confirmed at the site near Wo Tin is therefore far greater than what can normally be found in Hong Kong, reflecting the presence of a large, active species pool of high ecological value.

8.8 Because many of the trees are uncommon in Hong Kong, **the site represents one of just a few known locations for many rare species.** The coexistence of multiple species of high conservation value adds to the site's unique ecological value, both on Lantau Island itself and throughout Hong Kong.

8.9 Hong Kong's natural areas are in a dynamic state of recovery following centuries of disturbance and degradation. The regeneration of species diversity following clearance of land for agriculture can take centuries and is impeded by a number of profound, inter-related ecological factors. For example, repeated outbreaks of hill fire can lead to severe soil erosion and permanently remove species from the landscape. Even once scrubby vegetation has been able to regenerate, the very dense, low thickets that normally form can prevent the re-establishment of native forest, because shade-tolerant tree species are often unable to grow in full sun and compete with hardy grasses, ferns and shrubs. The advanced state of ecological succession seen at the Wo Tin site indicates that several of these innate barriers to succession have already been overcome: many trees are now large (> 5 m tall), creating the structure of true forest with a diversity of distinct microhabitats, such as dark, moist streamside forest in valleys and lighter, more open forest edges on slopes. This in turn allows an even greater mix of dependent fauna and flora species (such as forest-dependent birds, mammals, butterflies, moths, other insects, shrubs and herbs) to recolonise.

8.10 The site itself also provides valuable information on the habitat conditions required by the replanted species. As aforementioned, due to the virtual complete deforestation of Hong Kong many years ago, the ideal growing conditions for many native tree species are largely unknown; so the successful growing of specific tree species at the application site acts as an important reference for future reforestation projects – providing valuable knowledge for the planting conditions required for these species. It also provides insights regarding future restoration of Lantau, Hong Kong and even South China.

8.11 All the above clearly indicate the uniqueness of the site.

A living seed bank of plant diversity deserving robust protection

8.12 There is strong evidence to suggest that this developing young forest is ecologically functional, in that many of the species are already setting seed and reproducing. For example, the rare trees *Cyclobalanopsis hui*, *Pyenarrhia spectabilis*, *Elaeocarpus nitentifolius*, *Gmelina chinensis* and *Fraxinus griffithii* were all observed in fruit. This indicates that the trees are able to complete their life cycles here. This promotes forest health through the recruitment of young trees and by ensuring species turn-over, thereby conferring ecological resilience for the forest as a whole (this also helps to ensure the survival of rare species, reducing their chances of becoming locally extinct). This is rarely seen in Hong Kong. If the trees within the site are allowed to become more mature in the future, we can foresee that the site would produce many more seeds, in terms of both quantity and diversity. However, this can only be guaranteed if the site is well protected.

8.13 Moreover, a growing, self-regenerating forest such as this has the potential to expand and improve the ecological value of surrounding lower quality vegetation, including that in the neighbouring Country Park, by attracting birds, mammals and insects that will help pollinate the plants and spread their seeds. Such ‘tree islands’ are becoming increasingly recognised as important in vegetation management and restoration in many other countries.

A better buffer to the Lantau North (Extension) Country Park and the current tree planting area

8.14 As above mentioned, now the ongoing tree planting activities by Mr. Paul Melsom and his volunteers have already shifted into the adjoining Country Park areas (since 2004). By rezoning the application site, these adjacent Country Park areas and the existing tree planting site(s) within would be better buffered and protected as rules controlling uses in/ close to CA zone would be more stringent (e.g., through the mechanism of Environmental Impact Assessment Ordinance Cap. 499) and thus more consideration is required.

An easily accessible area for future studies

8.15 The site is easily accessible through existing footpaths. Besides providing valuable information on the habitat requirements of many species of conservation concern, with so many native tree species including many rare ones growing in a very accessible location, the application site also provides an excellent opportunity for educational purposes (e.g., for university and school students, environmental managers, local villagers, hikers and tourists). It can help enhance the overall educational value of the area including the adjoining Country Park. The well-established woodland now within the site also demonstrates how an existing fire break around the site can help protect well-vegetated areas from hill fires. The wide variety of trees planted at the site also adds beauty to the landscape where once it was a scrubby, eroded hillside. In addition, the canopy of the planted trees provides a cool, shaded walkway – it is simply an enjoyable, living educational corridor for relevant professionals (e.g., landscape architect) to actually see and touch the tree species which would not even be observable in most of our countryside. To conclude, the site provides a lot of opportunities for many types of future studies that cannot be offered by many other well wooded areas – this is contributed by the unique composition of the existing forest and the existing setting.

In line with the general planning intention of the Mui Wo North Area and the principle of “Development in the North; Conservation for the South” by the Government

8.16 According to the Explanatory Statement of the Draft Mui Wo North OZP, the general planning intention of the Mui Wo North Area is to ‘*conserve its landscape and ecological value in safeguarding the natural habitats and to maintain the unique natural and rural character and cultural heritage of the Area*’.²

8.17 Rezoning the area of concern from GB to CA can definitely provide better protection to and help better maintain the unique reforestation site as aforementioned (see elaboration in above Sections 5 and 8.14). Approval of this application can ensure that the unique natural habitat now within the site (i.e., a self-regenerating forest with many rare trees and a composition rarely seen in Hong Kong) and associated ecological value would be more appropriately conserved. This is not just completely in line with the general planning intention of the Area, but also echoes the overarching principle of 'Conservation for the South' embraced in the Sustainable Lantau Blueprint promulgated by the Government in 2017⁵.

9. Conclusion

9.1 The site presents a range of biological and ecological features that are unique on Lantau Island and very rare in Hong Kong. These include the diverse mix of thriving tree species in a lowland setting, the advance stage of forest recovery that has withstood and recovered from repeated damage by hill fires (e.g., in 2003/2004, 2009 and 2018 in various parts of the application site; but the fire break above the Wang Tong Cemetery has been considerably widened over recent years to better prevent hill fires from spreading into the site), and strong empirical evidence that suggests the new woodland is increasingly self-sustaining and can thereby support many forest-dependent species of birds, mammals, insects and other plants. All of these factors are indicative of the site's prime conservation importance.

9.2 Indeed, several of the tree species are not only ecologically important locally at the scale of Hong Kong, but are of national and global conservation significance (e.g., as indicated on the International Union for Conservation of Nature (IUCN)'s Red List; see **Appendix 2**). In this context, it is worth highlighting that, from 2021, we are in the United Nations (UN)' decade of ecosystem restoration, which seeks to prevent, halt and reverse the degradation of ecosystems worldwide⁶. The UN Biodiversity Conference (COP15), which will be held in Montreal, Canada (with China holding the presidency) in coming December⁷, will also focus on protecting nature and halting biodiversity loss around the world. Offering a more stringent zoning to better protect the present site and the unique forest within would show that Hong Kong is embracing these core conservation values.

9.3 Many local reforestation projects in the past have been overly planted with millions of non-native tree species; learning from successful projects like the present one can provide more knowledge for planting a larger variety of native trees in the future. Indeed, China has also made significant progress in ecological restoration⁸, again underscoring the relevance of such practices and effort in line with China's national goal. The dedication and enthusiasm of Mr. Paul Melsom and his volunteers, as well as their contribution to Hong Kong's ecology, are commendable and ought to be supported by available statutory means in Hong Kong. Strengthening statutory protection of the site by rezoning it as CA is wholeheartedly advised.

10. References

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- 8 Cui, W., Liu, J., Jia, J., and Wang, P. 2021. Terrestrial ecological restoration in China: identifying advances and gaps. *Environmental Sciences Europe* Vol. 33: 123. Retrieved from <https://doi.org/10.1186/s12302-021-00563-2>

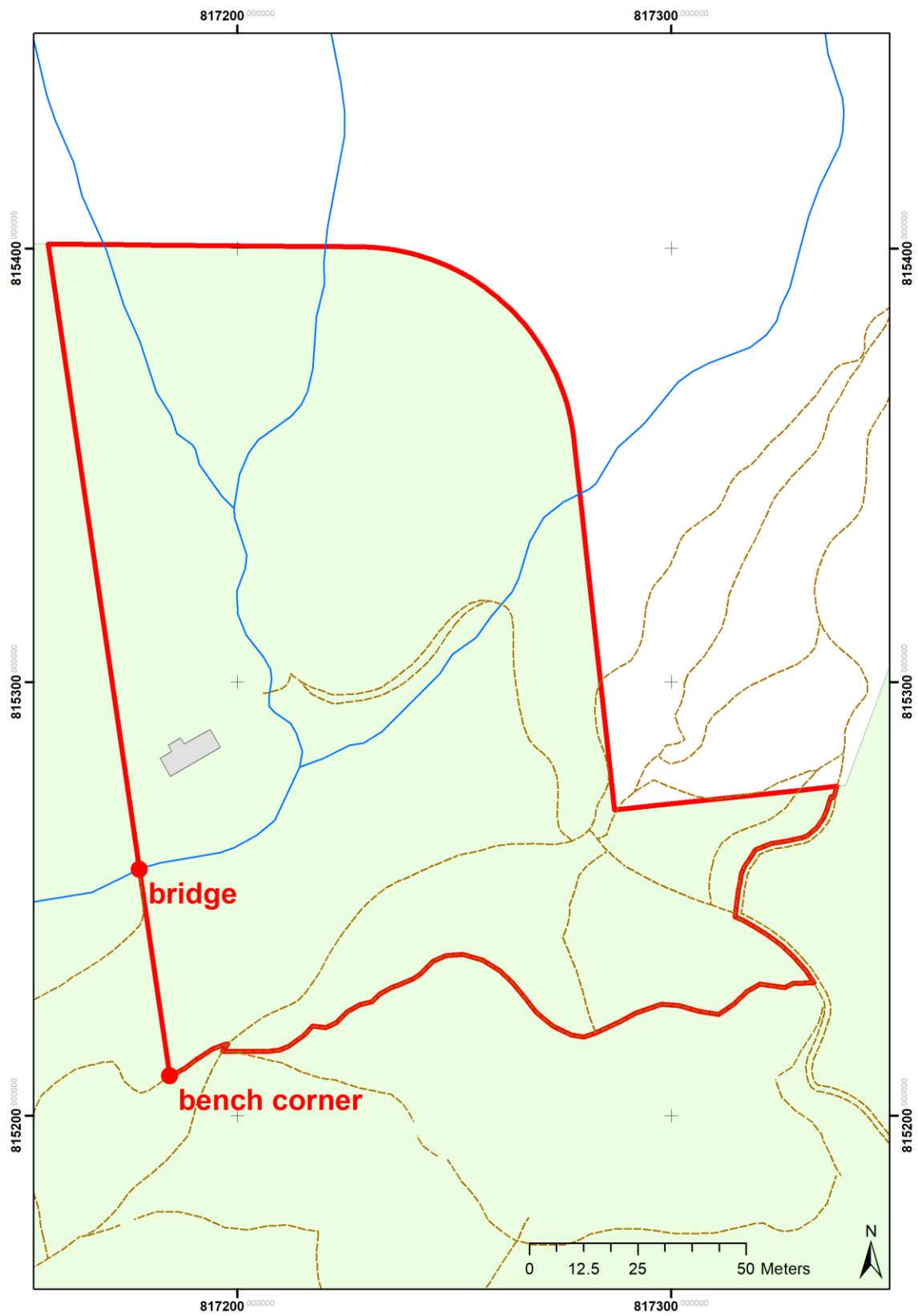
11. Appendices

Appendix 1 Site Location Map

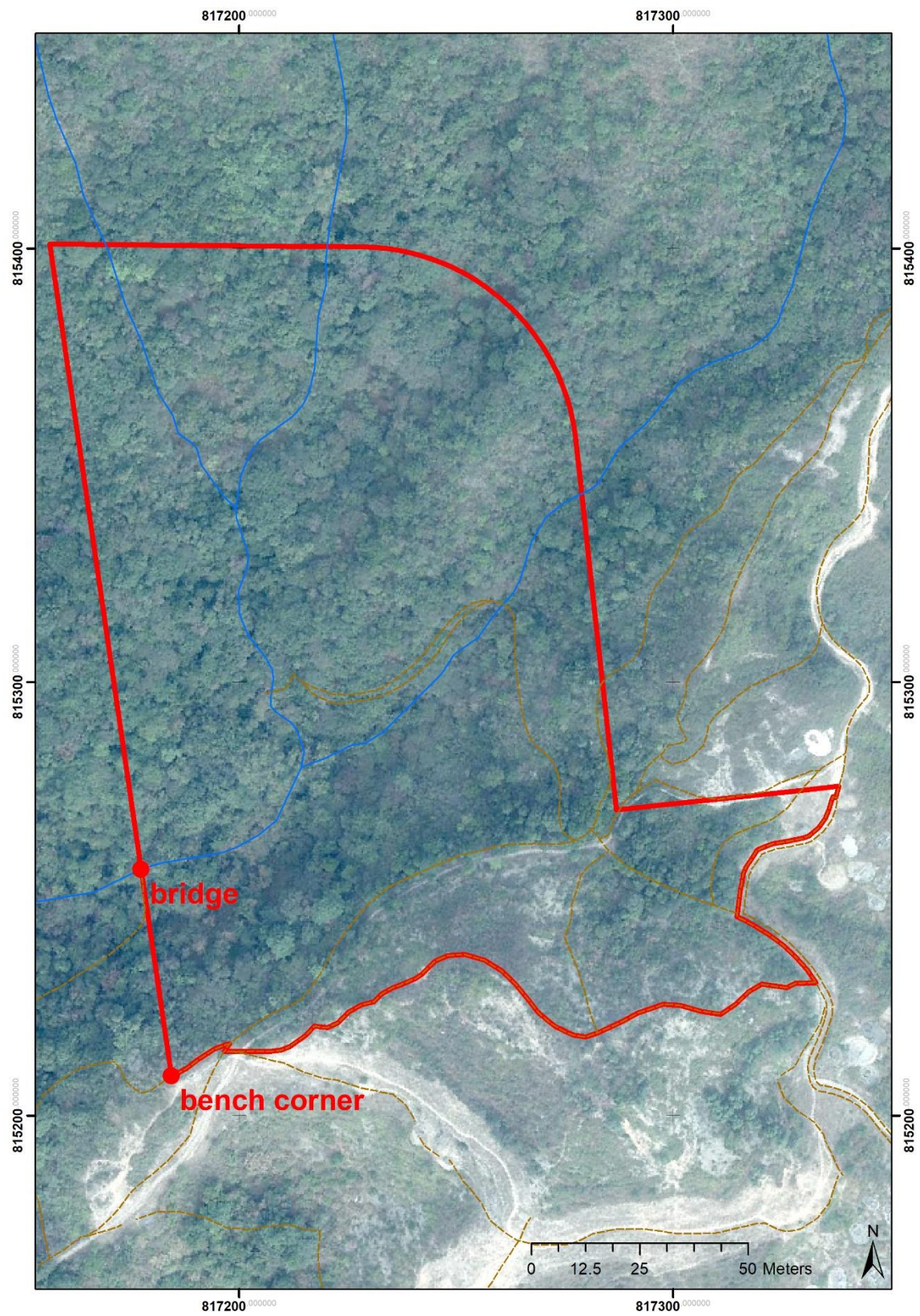
Appendix 2 Native tree and shrub species found within the application site and their status

Appendix 3 Locations and parameters of some selected species/ individuals

Appendix 1: Site Location Map



Appendix 1: Site Location Map



Appendix 2. Native tree and shrub species found within the application site and their status.

Scientific name*	Chinese name	Local status ¹	Conservation status ² and categories ³	Remarks	Fruiting within site	Food source of native birds and/or mammals
<i>Castanopsis concinna</i>	華南錐	Restricted	VU; Category 2	IUCN Red List: Vulnerable; State Key Protected Plant Species (II); endemic to southern China.		Yes
<u><i>Aquilaria sinensis</i></u>	土沉香	Common	NT; Category 2	IUCN Red List: Vulnerable; protected under Cap. 586; State Key Protected Plant Species (II); listed as Vulnerable in China Plant Red Data Book; endemic to China.	Yes	
<i>Gmelina chinensis</i>	石梓	Common	VU; Category 3		Yes	
<i>Acer tutcheri</i>	嶺南槭	Restricted	LC; Category 4	First discovered on Lantau Island in 1894 (type locality).		
<i>Ormosia pachycarpa</i>	茸莢紅豆	Restricted	EN; Category 4			
<i>Cyclobalanopsis edithiae</i> (<i>Quercus edithiae</i>)	華南青岡	Restricted		IUCN Red List: Endangered		Yes
<i>Cyclobalanopsis neglecta</i> (<i>Quercus bambusifolia</i>)	竹葉青岡	Restricted		IUCN Red List: Endangered		Yes

Appendix 2: Native tree and shrub species found within the applications site and their status

Scientific name*	Chinese name	Local status ¹	Conservation status ² and categories ³	Remarks	Fruiting within site	Food source of native birds and/or mammals
<i>Acer sino-oblongum</i>	濱海槭	Common		IUCN Red List: Endangered; globally found only in coastal evergreen forest along the Guangdong seashore.	Yes	
<i>Ilex graciliflora</i>	細花冬青	Common		IUCN Red List: Endangered		
<i>Cyclobalanopsis hui</i>	雷公青岡	Very rare			Yes	Yes
<i>Ilex chapaensis</i>	沙壩冬青	Very rare				
<i>Elaeocarpus nitentifolius</i>	絹毛杜英	Rare		Restricted to Ho Chung, Sai Kung, and Tate's Carin area in Hong Kong.	Yes	Yes
<i>Pyrenaria spectabilis</i>	石筆木	Restricted		Protected under Cap. 96	Yes	
<i>Fraxinus griffithii</i>	光蠟樹	Restricted		Restricted to Lantau in Hong Kong	Yes	
<i>Cyclobalanopsis championii</i>	嶺南青岡	Restricted				
<i>Endospermum chinense</i>	黃桐	Restricted			Yes	Yes
<i>Helicia cochinchinensis</i>	小果山龍眼	Restricted				
<i>Lithocarpus harlandii</i>	港柯	Restricted				Yes
<i>Osmanthus matsumuranus</i>	牛矢果	Restricted			Yes	Yes

Appendix 2: Native tree and shrub species found within the applications site and their status

Scientific name*	Chinese name	Local status ¹	Conservation status ² and categories ³	Remarks	Fruiting within site	Food source of native birds and/or mammals
<i>Pyrus calleryana</i>	豆梨	Restricted			Yes	Yes
<i>Adinandra millettii</i>	黃瑞木	Common			Yes	Yes
<i>Alangium chinense</i>	八角楓	Common			Yes	
<i>Archidendron lucidum</i>	亮葉猴耳環	Common			Yes	
<i>Castanopsis fabri</i>	羅浮錐	Common				Yes
<i>Castanopsis fissa</i>	鷺蒴錐	Common			Yes	Yes
<i>Choerospondias axillaris</i>	南酸棗	Common			Yes	Yes
<i>Cinnamomum camphora</i>	樟	Common				
<i>Cinnamomum parthenoxylon</i>	黃樟	Common				
<i>Cyclobalanopsis myrsinifolia</i>	小葉青岡	Common				
<u><i>Daphniphyllum calycinum</i></u>	牛耳楓	Common			Yes	
<i>Daphniphyllum oldhamii</i>	虎皮楠	Common			Yes	

Appendix 2: Native tree and shrub species found within the applications site and their status

Scientific name*	Chinese name	Local status ¹	Conservation status ² and categories ³	Remarks	Fruiting within site	Food source of native birds and/or mammals
<i>Elaeocarpus chinensis</i>	中華杜英	Common			Yes	Yes
<i>Engelhardia roxburghiana</i>	黃杞	Common				
<i>Eriobotrya fragrans</i>	香花枇杷	Common			Yes	
<u><i>Gardenia jasminoides</i></u>	梔子	Common			Yes	
<i>Glochidion lanceolarium</i>	艾膠算盤子	Common			Yes	
<i>Ilex cinerea</i>	灰冬青	Common				
<i>Ilex rotunda</i> var. <i>microcarpa</i>	小果鐵冬青	Common			Yes	
<i>Ilex viridis</i>	綠冬青	Common				
<i>Ligustrum liukiuense</i>	台灣女貞	Common				
<i>Liquidambar formosana</i>	楓香	Common				
<i>Lithocarpus glaber</i>	柯	Common				Yes
<i>Lithocarpus hancei</i>	硬殼柯	Common			Yes	Yes
<i>Litsea cubeba</i>	木薑子	Common			Yes	

Appendix 2: Native tree and shrub species found within the applications site and their status

Scientific name*	Chinese name	Local status ¹	Conservation status ² and categories ³	Remarks	Fruiting within site	Food source of native birds and/or mammals
<i>Maesa perlarius</i>	鯽魚膽	Common			Yes	
<i>Melastoma malabathricum</i>	野牡丹	Common			Yes	
<u><i>Melastoma sanguineum</i></u>	毛荳	Common			Yes	
<u><i>Melicope pteleifolia</i></u>	蜜茱萸	Common			Yes	
<i>Morella rubra</i>	楊梅	Common				Yes
<i>Ormosia emarginata</i>	凹葉紅豆	Common			Yes	
<i>Photinia raupingensis</i>	饒平石楠	Common			Yes	Yes
<i>Pygeum topengii</i>	臀果木	Common				Yes
<i>Reevesia thyrsoides</i>	梭羅樹	Common			Yes	
<u><i>Rhus succedanea</i></u>	木蠟樹	Common			Yes	
<i>Schima superba</i>	木荷	Common			Yes	
<i>Scolopia chinensis</i>	刺柊	Common				
<i>Styrax suberifolius</i>	栓葉安息香	Common			Yes	
<i>Syzygium hancei</i>	韓氏蒲桃	Common				Yes

Appendix 2: Native tree and shrub species found within the applications site and their status

Scientific name*	Chinese name	Local status ¹	Conservation status ² and categories ³	Remarks	Fruiting within site	Food source of native birds and/or mammals
<i>Syzygium levinei</i>	山蒲桃	Common				Yes
<i>Ternstroemia gymnanthera</i>	厚皮香	Common			Yes	Yes
<u><i>Tetradium glabrifolium</i></u>	棟葉吳茱萸	Common			Yes	
<i>Zanthoxylum avicennae</i>	簕欖花椒	Common			Yes	
<i>Diplospora dubia</i>	狗骨柴	Common			Yes	
<i>Phoenix loureiroi</i>	刺葵	Common			Yes	
<i>Adina pilulifera</i>	水團花	Very Common			Yes	
<u><i>Cratoxylum cochinchinense</i></u>	黃牛木	Very Common			Yes	
<i>Diospyros morrisiana</i>	羅浮柿	Very Common			Yes	Yes
<i>Elaeocarpus slyvestris</i>	山杜英	Very Common			Yes	Yes
<i>Garcinia oblongifolia</i>	嶺南山竹子	Very Common			Yes	Yes

Appendix 2: Native tree and shrub species found within the applications site and their status

Scientific name*	Chinese name	Local status ¹	Conservation status ² and categories ³	Remarks	Fruiting within site	Food source of native birds and/or mammals
<i>Ilex asprella</i>	梅葉冬青	Very Common			Yes	
<i>Lithocarpus corneus</i>	煙斗柯	Very Common				Yes
<i>Litsea rotundifolia</i> var. <i>oblongifolia</i>	圓葉豺皮樟	Very Common			Yes	
<i>Machilus breviflora</i>	短序潤楠	Very Common				
<u><i>Mallotus paniculatus</i></u>	白楸	Very Common			Yes	Yes
<i>Myrsine seguinii</i>	密花樹	Very Common				
<u><i>Phyllanthus emblica</i></u>	餘甘子	Very Common			Yes	Yes
<i>Polyspora axillaris</i>	大頭茶	Very Common			Yes	
<i>Prunus phaeosticta</i>	腺葉桂櫻	Very Common				
<i>Psychotria asiatica</i>	九節	Very Common			Yes	

Appendix 2: Native tree and shrub species found within the applications site and their status

Scientific name*	Chinese name	Local status ¹	Conservation status ² and categories ³	Remarks	Fruiting within site	Food source of native birds and/or mammals
<u>Raphiolepis indica</u>	石斑木	Very Common			Yes	
<i>Rhodomyrtus tomentosa</i>	桃金娘	Very Common			Yes	Yes
<u>Sapium discolor</u>	山烏柏	Very Common			Yes	
<u>Schefflera octophylla</u>	鵝掌柴	Very Common			Yes	Yes
<u>Sterculia lanceolata</u>	假蘋婆	Very Common				
<i>Viburnum odoratissimum</i>	珊瑚樹	Very Common			Yes	Yes
<i>Viburnum sempervirens</i>	常綠莢蒾	Very Common				

* Species in bold are species planted by Mr. Paul Melsom and his volunteers and not naturally occurring at the application site (60 spp.); species in bold and underlined are those planted by Mr. Paul Melsom and volunteers and also naturally occurring at the application site. (14 spp.); species not bold and/or underlined are those growing naturally at the application site, not planted (12 spp.).

1. Xing, F., Ng, S.-c., and Chau, L.K.C. 2000. Gymnosperms and Angiosperms of Hong Kong. *Memoirs of The Hong Kong Natural History Society*. No. 23, pp. 21-136.
2. Information from Hon Kong Herbarium website: <https://herbarium.gov.hk/en/home/index.html>; status following 'Rare and Previous Plants of Hong Kong': LC: Least Concern; NT: Near Threatened; VU: Vulnerable; EN: Endangered.
3. Categories following '100 Rare and Previous Plants of Hong Kong' listed on Hong Kong Herbarium website: Category 2: species that are native to Hong Kong and of national importance; Category 3: species that are native to Hong Kong and of importance in Guangdong; Category 4: native species that have important scientific interests or potential value in various uses, or those having small populations or sparse distribution in Hong Kong.

Appendix 3. Locations and parameters of some selected species/ individuals.

Species	No. of trees	Estimated height (m)	HK80 coordinates		Elevation (m)
			Easting (m)	Northing (m)	
<i>Cyclobalanopsis championii</i>	1	1	817330.1	815233.9	92
<i>Ilex graciliflora</i>	1	1	817285.2	815222.8	109
<i>Fraxinus griffithii</i>	2	4	817203.3	815215.6	94
<i>Engelhardtia roxburghiana</i>	1	2	817203.3	815215.6	94
<i>Fraxinus griffithii</i>	1	6	817193.6	815214.9	93
<i>Gmelina chinensis</i>	1	3	817193.6	815214.9	93
<i>Gmelina chinensis</i>	1	4	817184.3	815209.6	94
<i>Meliosma rigida</i>	1	3 to 4	817184.3	815209.6	94
<i>Aquilaria sinensis</i>	1	2 to 3	817187.9	815213.9	93
<i>Castanopsis fabri</i>	1	3.5	817205.0	815221.8	94
<i>Photinia raupingesis</i>	1	4	817205.0	815221.8	94
<i>Fraxinus griffithii</i>	1	7	817205.0	815221.8	94
<i>Endospermum chinense</i>	1	11	817214.2	815227.3	93
<i>Aquilaria sinensis</i>	1	8	817218.5	815233.4	93
<i>Endospermum chinense</i>	1	8	817218.5	815233.4	92
<i>Castanopsis concinna</i>	1	5	817218.5	815233.4	92

Species	No. of trees	Estimated height (m)	HK80 coordinates		Elevation (m)
			Easting (m)	Northing (m)	
<i>Ormosia emarginata</i>	1	3 to 4	817218.5	815233.4	92
<i>Cyclobalanopsis neglecta</i>	1	6	817220.7	815237.5	95
<i>Endospermum chinense</i>	1	12	817227.3	815247.2	94
<i>Osmanthus matsumuranus</i>	1	7	817227.3	815247.2	94
<i>Castanopsis concinna</i>	1	5	817238.7	815255.6	95
<i>Acer sino-oblongum</i>	1	2	817244.8	815257.1	99
<i>Fraxinus griffithii</i>	1	8	817244.8	815257.1	99
<i>Styrax suberifolius</i>	1	7 to 8	817249.8	815259.6	95
<i>Elaeocarpus nitentifolius</i>	1	7 to 8	817249.8	815259.6	95
<i>Castanopsis fabri</i>	1	6	817265.0	815262.1	97
<i>Osmanthus matsumuranus</i>	2	6	817265.0	815262.1	97
<i>Pyrus calleryana</i>	1	2	817270.8	815262.9	98
<i>Pyrus calleryana</i>	1	4	817270.8	815262.9	98
<i>Pyrus calleryana</i>	1	6	817270.8	815262.9	98
<i>Cyclobalanopsis neglecta</i>	1	4	817270.8	815262.9	98
<i>Ilex graciliflora</i>	1	1.5	817324.1	815263.9	100
<i>Cyclobalanopsis championii</i>	1	1.5	817324.1	815263.9	100

Appendix 3: Locations and parameters of some selected species/ individuals

Species	No. of trees	Estimated height (m)	HK80 coordinates		Elevation (m)
			Easting (m)	Northing (m)	
<i>Cyclobalanopsis hui</i>	3	2.5	817321.9	815267.5	100
<i>Elaeocarpus chinensis</i>	1	2 to 3	817321.9	815267.5	100
<i>Pyrenaria spectabilis</i>	2	8 to 9	817289.7	815251.1	101
<i>Ilex chapaensis</i>	1	4	817289.7	815251.1	101
<i>Ormosia pachycarpa</i>	1	1	817289.7	815251.1	101
<i>Ormosia pachycarpa</i>	1	4	817281.3	815239.5	104
<i>Helicia cochinchinensis</i>	1	3	817281.3	815239.5	104
<i>Lithocarpus harlandii</i>	1	8	817273.8	815271.4	99
<i>Castanopsis fabri</i>	4	9 to 10	817273.8	815271.4	99
<i>Castanopsis concinna</i>	2	6	817273.8	815271.4	99
<i>Elaeocarpus nitentifolius</i>	1	10	817273.8	815271.4	99
<i>Eriobotrya fragrans</i>	1	4 to 5	817276.7	815280.2	100
<i>Ligustrum liukuense</i>	2	3 to 4	817276.7	815280.2	100
<i>Ternstroemia gymnanthera</i>	1	2	817276.7	815280.2	100
<i>Acer tutcheri</i>	1	2	817277.6	815282.4	94
<i>Ilex rotunda</i>	1	2 to 3	817277.6	815282.4	94
<i>Syzygium levinei</i>	1	3 to 4	817277.6	815282.4	94

Appendix 3: Locations and parameters of some selected species/ individuals

Species	No. of trees	Estimated height (m)	HK80 coordinates		Elevation (m)
			Easting (m)	Northing (m)	
<i>Lithocarpus corneus</i>	1	3 to 4	817279.7	815301.7	101
<i>Cyclobalanopsis myrsinifolia</i>	1	4 to 5	817279.7	815301.7	101
<i>Lithocarpus hancei</i>	1	3 to 4	817279.7	815301.7	101
<i>Elaeocarpus chinensis</i>	1	3 to 4	817279.7	815301.7	101
<i>Fraxinus griffithii</i>	1	4 to 5	817279.7	815301.7	101
<i>Cyclobalanopsis edithiae</i>	1	2	817280.1	815302.9	99
<i>Choerospondias axillaris</i>	1	9 to 10	817280.1	815302.9	99