



Tai Shue Wan Development at Ocean Park

Updated Woodland Compensation Plan

May 2022

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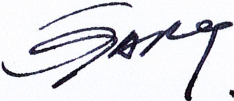
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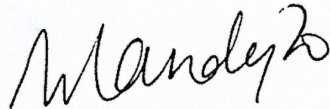
May 2022

Pursuant to Condition 2.7 of Environmental Permit No. EP-487/2014/A,
this Updated Woodland Compensation Plan has been reviewed and
certified by the Environmental Team Leader (ETL) and verified by the
Independent Environmental Checker (IEC).

Certified by: 

Gary Chow
Environmental Team Leader (ETL)
Mott MacDonald Hong Kong Limited

Date: 27.6.2022

Verified by: 

Mandy To
Independent Environmental Checker (IEC)
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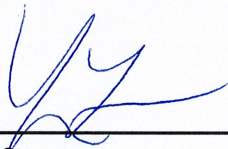
Date: 29.6.2022

Pursuant to Conditions 2.3 and 2.7 of Environmental Permit

No. EP-487/2014/A, this Updated Woodland Compensation Plan

has been prepared by the Qualified Ecologist.

Prepared by:



Yusei Lo
Qualified Ecologist
Mott MacDonald Hong Kong Limited

Date

27 Jun 2022

Information class: Standard

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1 Introduction

1.1 Background

Under the Environmental Impact Assessment (EIA) Ordinance, the EIA Report and the Environmental Monitoring and Audit (EM&A) Manual (Register No.: AEIAR-184/2014) prepared for the “Tai Shue Wan Development at Ocean Park” (the Project) was approved by the Environmental Protection Department (EPD) on 27 August 2014. Based on the Application of Variation of Environmental Permit (EP) No. VEP-539/2017, the current valid EP No. EP-487/2014/A was issued on 10 January 2018.

As mentioned in Section 10.6.1 of the EIA report, approximately 1.53 ha of woodland will be affected due to site clearance and construction of the Project. The woodland habitat within the Project area has been identified as being in an early development stage by the relatively young to semi-mature existing trees. Impact of permanent loss of woodland habitat is considered to be minor.

In Section 10.7.3.2 of the EIA report, approximately 1.62 ha of woodland compensation is recommended as a mitigation measure for the loss of approximately 1.53 ha of woodland during construction phase of the Project. The proposed location of the woodland compensation area (WCA) is presented in **Figure 1.1**. This area is selected for woodland compensation because it is adjoining to the existing woodland habitat and tall shrubland, thereby enhancing the overall habitat continuity and ecological linkage of the surrounding natural habitats and providing alternative habitats for the fauna affected by the proposed works. In the WCA, whip trees are recommended to be planted with predominately native tree species similar to the affected woodland, such as *Celtis sinensis*, *Cratoxylum cochinchinense*, *Polyspora axillaris* and *Sterculia lanceolata*.

In accordance with Condition 2.7 of the EP, a Woodland Compensation Plan was submitted to EPD in October 2014 and approved. As stated in the approved Woodland Compensation Plan, the implementation of the woodland compensation can hardly start until the construction works of the Project is substantially completed. On the other hand, there was minor change in the project boundary referring to the Variation of the EP implemented in January 2018, and an amendment submission of Tree Preservation and Removal Proposal (TPRP) and Landscape Master Plan (LMP) approved in August 2020 by the Planning Department (Application No. A/H15/260). Therefore, there is a need to revise the approved Woodland Compensation Plan with the updated information.

Mott MacDonald Hong Kong Limited has been commissioned by the Ocean Park Corporation (OPC) to prepare and submit the Updated Woodland Compensation Plan to meet Condition 2.7 of the EP.

1.2 Objective of Establishment of Woodland Compensation Area

The objective of establishing the WCA is to compensate for the woodland loss due to the Project by providing compensatory whip tree planting to recreate woodland habitat on hillside slopes disturbed during the construction phase. This Woodland Compensation Plan will form the basis to guide the implementation of the proposed woodland mitigation as recommended in the EIA report to provide better quality and diversified secondary woodland areas in the Project Boundary and to ensure the general health condition and survival rate of the plants.

As stipulated in Condition 2.7 (a) of the EP, the Woodland Compensation Plan shall include:

1. Native tree species and size of trees to be selected for planting with justifications (detailed in **Section 2.2**);
2. Size of the woodland compensation areas (detailed in **Section 2.1 and Figure 1.1**) and planting spacing (detailed in **Section 2.2 and Figure 2.1**);
3. Schedule for tree planting (detailed in **Section 2.3**); and
4. A detailed 3-year post-planting monitoring and maintenance programme (detailed in **Section 3**).

1.3 Personnel

This Updated Woodland Compensation Plan prepared in accordance with Condition 2.7 of the Environmental Permit No. EP-487/2014/A has been checked and endorsed by Qualified Ecologist who has at least 5 or more years of relevant experience in tree planting or woodland monitoring. The qualification of the qualified ecologist has been reviewed and agreed with the Environmental Team (ET) Leader and the Independent Environmental Checker (IEC).

2 Woodland Compensation Proposal

2.1 Extent of Woodland Compensation Area

As discussed in Section 10.7.3.2 of the EIA report, a total of approximately 1.62 ha of WCA is proposed. Further to the detailed design and construction of the Project, the building layout has been refined. The proposed WCA is therefore updated according to the latest Project design with the total area remains unchanged. The proposed WCA location is shown in **Figure 1.1**. The proposed WCA is adjoining to existing woodland and tall shrubland habitats for maintaining an ecological linkage.

2.2 Planting Strategy

To ensure slope stability and proper development of the new whip tree planting, the compensatory whip planting will be provided on unaffected natural vegetated slope that are less steep within the WCA, and limited to grassland areas, avoiding disturbance to existing trees. Steeply sloping areas with gradient larger than 35 degrees, or with shotcrete geo-tech treatments and rocky sloping area with limited soil depth will not be considered. The dense native shrubland and existing trees (all of which were approved to be felled in previous Tree Removal Application in 2014) can now be retained, thus providing greater slope stability and ecological benefits for the development of secondary woodland for both the existing trees and compensatory whip trees.

Whip trees of 0.01 m diameter with height between 900 mm and 2,000 mm are proposed for tree planting for their higher survival rate and vigour to withstand the exposed condition. The planting spacing varies over the WCA, depending on the natural terrain and existing vegetation coverage. An estimated quantity of whip trees that can be planted without significant disturbance to the existing natural shrubland will be assigned based on the density of existing shrub vegetation.

Tree species proposed to be planted in the WCA are particularly selected for their high tolerance to the local environment including exposed to windy conditions and salt spray near the seashore. Seasonal foliage growth is also considered during tree selection, thus a mix of evergreen and deciduous tree species are selected. Stock availability in the market is also considered to ascertain the practicability of the planting proposal.

The proposed species are predominantly native tree species. However, the use of exotic species as pioneer species is considered necessary because no native species, with available stock in the market, has comparable tolerance to the specific site conditions, survival rate and growth rate to commonly used exotic species such as *Acacia* species. Therefore, exotic species is proposed in the planting mix to help creating a habitat more suitable for the establishment of native species. The use of exotic species has been minimised in the proposed planting to maintain the ecological value of the WCA.

To ensure the proposed species are well adapted to the specific site condition of the WCA, tree species which are commonly recorded in the area in the EIA report will be proposed as far as practicable. To further optimize the survival rate of the proposed tree planting in the WCA, the WCA is divided into three different areas based on their micro-environment, namely Seaside Area (SEA), Sheltered Area (SHA) and Exposed Area (EXA), as shown in **Figure 2.1**, which have been updated based on the detailed design of the Project. Three types of woodland plant species mixes (Matrix A, B & C) are proposed respectively for these three areas with reference to their specific site conditions. The plant species and estimated quantity are shown in **Table 2.1 to Table 2.3**.

Seaside Area (SEA)

The SEA (approximately 0.20 ha) is located at the southern periphery of the Project boundary. This area is characterised by northwest-facing hillside slopes of relatively low altitude close to the coastline. Due to its short distance to the coast, tolerance to salt spray is an important consideration for selecting tree species to be planted in the SEA. Proposed tree planting (Matrix A) for the SEA is shown in **Table 2.1**.

Table 2.1: Proposed Tree Planting (Matrix A) for the Seaside Area (SEA)

| Botanical Name | Chinese Name | Habit | Native / Exotic | Percentage | Estimated Quantity |
|--|--------------|-----------|-----------------|-------------|--------------------|
| Pioneer species | | | | | |
| <i>Acacia confusa</i> | 台灣相思 | Evergreen | Exotic | 24% | 67 |
| <i>Ficus hispida</i> | 對葉榕 | Evergreen | Native | 16% | 45 |
| Sub-climax species | | | | | |
| <i>Cratoxylum cochinchinense</i> | 黃牛木 | Deciduous | Native | 16% | 55 |
| <i>macaranga tanarius var. tomentosa</i> | 血桐 | Evergreen | Native | 20% | 33 |
| <i>Mallotus paniculatus</i> | 白楸 | Evergreen | Native | 12% | 45 |
| Climax species | | | | | |
| <i>Celtis sinensis</i> | 朴樹 | Deciduous | Native | 12% | 33 |
| Sub-total: | | | | 100% | 278 |

Sheltered Area (SHA)

The SHA (approximately 0.46 ha) is located at the south-eastern periphery of the Project boundary. This area is characterised by northwest-facing hillside slopes located some distance from the coastline. This area is not directly affected by the predominant north-easterly wind in the Tai Shue Wan area. Therefore, tolerance to strong wind is not as critical compared to other areas when considering suitable tree species for planting. Proposed tree planting (Matrix B) for the SHA is shown in **Table 2.2**.

Table 2.2: Proposed Tree Planting (Matrix B) for the Sheltered Area (SHA)

| Botanical Name | Chinese Name | Habit | Native / Exotic | Percentage | Estimated Quantity |
|-------------------------------|--------------|-----------|-----------------|-------------|--------------------|
| Pioneer species | | | | | |
| <i>Acacia confusa</i> | 台灣相思 | Evergreen | Exotic | 24% | 145 |
| <i>Ficus hispida</i> | 對葉榕 | Evergreen | Native | 16% | 97 |
| Sub-climax species | | | | | |
| <i>Polyspora axillaris</i> | 大頭茶 | Evergreen | Native | 16% | 120 |
| <i>Schefflera heptaphylla</i> | 鴨腳木 | Evergreen | Native | 12% | 72 |
| <i>Sterculia lanceolata</i> | 假蘋婆 | Evergreen | Native | 20% | 97 |
| Climax species | | | | | |
| <i>Celtis sinensis</i> | 朴樹 | Deciduous | Native | 12% | 73 |
| Sub-total: | | | | 100% | 604 |

Exposed Area (EXA)

The EXA (approximately 0.96 ha) is located at the northern periphery of the Project boundary. This area is characterised by south- and southwest-facing hillside slopes located some distance

from the coastline. This area is largely exposed to the predominant north-easterly wind in the Tai Shue Wan area. Therefore, proposed species in this area are particularly chosen for their tolerance to strong wind. Proposed tree planting (Matrix C) for the EXA is shown in **Table 2.3**.

Table 2.3: Proposed Tree Planting (Matrix C) for the Exposed Area (EXA)

| Botanical Name | Chinese Name | Habit | Native / Exotic | Percentage | Estimated Quantity |
|---------------------------------|--------------|-----------|-----------------|-------------|--------------------|
| Pioneer species | | | | | |
| <i>Acacia confusa</i> | 台灣相思 | Evergreen | Exotic | 16% | 343 |
| <i>Pinus massoniana</i> | 馬尾松 | Evergreen | Native | 24% | 228 |
| Sub-climax species | | | | | |
| <i>Ficus variegata</i> | 青果榕 | Evergreen | Native | 16% | 286 |
| <i>Reevesia thyrsoidea</i> | 梭羅樹 | Evergreen | Native | 12% | 171 |
| <i>Rhus succedanea</i> | 野漆樹 | Deciduous | Native | 20% | 228 |
| Climax species | | | | | |
| <i>Choerospondias axillaris</i> | 南酸棗 | Deciduous | Native | 12% | 171 |
| Sub-total: | | | | 100% | 1427 |

Compared to the previous proposed planting strategy, there is a major difference in the estimated quantity of whip trees in the current one, which can be justified with due consideration of the overall long-term development of both the compensatory and existing woodland.

Due to the change in project boundary (as mentioned in Section 1.1) and the reduction in construction affected area after detailed design of the Project, more existing dense vegetated areas with mature trees which were originally approved for felling could be retained. This caused the slope area available for compensatory whip planting to be reduced significantly.

With regard to the long-term development of the existing and compensatory woodland, the current planting strategy has adjusted to select slope areas that are suitable for growing new whip trees, and to avoid areas with dense shrubland or maturing trees to reduce competition. Moreover, the majority of the proposed whip tree planting will be native species. With the retaining dense shrubland and vegetation acting as a nurturing ground, the natural propagation of the new whip trees into secondary woodland can be facilitated. Instead of filling up all the space and overcrowding the WCA with existing and new vegetation, the current strategy can balance the growth of both, and enhance the ecological structure and biodiversity of the existing vegetation, thus is beneficial for the development of natural woodland in the long term.

Selective removal of exotic species (i.e. *Acacia confusa*) is not proposed for the WCA within the 3-year post-planting period because the main function of the proposed exotic species is to help creating a habitat more suitable for the initial establishment of native species. Selective removal of the proposed exotic species within the first few years of planting will defeat of purpose of having them as “shelter” for the native species.

The specifications for planting works will follow the General Specification for Civil Engineering Works (2006) Section 3 – Landscape Softworks and Establishment Works.

2.3 Implementation Schedule

The construction works of the Project was completed in August 2021. The implementation of the woodland compensation can start for planting works in Q2 of 2022. An Implementation Schedule summarising the relevant mitigation measures for woodland compensation with reference to the Implementation Schedule for Environmental Mitigation Measures of the EM&A Manual for the

Project is shown in **Appendix A**. The schedule for tree planting and post-planting works is shown in **Table 2.4**.

Table 2.4: Proposed Schedule for Tree Planting and Post-planting Works

| | 2022 | | | 2023 | | | | 2024 | | | | 2025 | | |
|---|------|----|----|------|----|----|----|------|----|----|----|------|----|----|
| | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| Planting works | | R | R | R | R | R | R | R | R | R | R | R | R | R |
| Establishment works ** | | | | | | | | | | | | | | |
| 3-year post-planting monitoring and maintenance | | | | | | | | | | | | | | |

Remarks: R = replacement planting, as required

* Year refers to the time after completion of construction works or after the identified earliest possible planting opportunity;

Q1 = Jan to Mar; Q2 = Apr to Jun; Q3 = Jul to Sep; Q4 = Oct to Dec

** Establishment works include those for replacement planting, if any

2.4 Implementation and Maintenance Arrangement

Both the implementation and maintenance of the compensatory planting will be fully funded by OPC, the Project Proponent, who will be responsible for the planting and maintenance works during the planting phase and the 3-year post-planting monitoring period as shown in **Table 2.5**.

Table 2.5: Proposed Inspection and Maintenance During Planting and Post-planting Periods

| | Planting Phase | 3-year Post-planting Period |
|--|---|-----------------------------------|
| Inspection frequency | Monthly during planting period (Section 2.5) | Bi-monthly (Section 3.1) |
| Maintenance and establishment works | All necessary regular maintenance in accordance with the General Specification for Civil Engineering Works (2006) Section 3 – Landscape Softworks and Establishment Works | As specified in Table 3.2 |

2.5 Planting Management

The proposed planting management works include monitoring and establishment of softworks which aim to ensure that the compensation meets the planting performance in accordance with the requirements of the planting strategy.

The specifications for standard practices of inspection and establishment works will follow the General Specification for Civil Engineering Works (2006) Section 3 – Landscape Softworks and Establishment Works. The inspection of planting works shall be carried out at monthly intervals during planting phase to determine the maintenance / establishment works as necessary.

To ensure the establishment of the WCA, a 3-year post-planting monitoring is proposed, apart from the standard practices and site inspections regularly conducted by the landscape contractors. The necessity for further monitoring would be reviewed after the 3-year post-planting monitoring programme.

The 3-year post-planting monitoring of planting includes parameters of general health condition and survival rate; while establishment works would include basically replacement of dead plants, weeding and watering.

Monitoring is proposed to be carried out by means of inspection walk. Monitoring in inspection walk aims to observe the overview / progress of the planting within the WCA.

3 Monitoring Programme

3.1 Post-planting Monitoring

The post-planting monitoring shall be conducted by ET and supervised by a qualified botanist / ecologist (Project Botanist / Ecologist) who will be a member of the ET.

To maximise monitoring effectiveness and provide a more accurate general overview of the planting areas, inspection walk, instead of fixed quadrats, is proposed for the post-planting monitoring.

As the post-planting monitoring conducted through inspection walk aims to observe the general condition of the WCA, the routes of the inspection walks should be selected to cover representative areas of each section of the WCA as far as possible. During each inspection walk, no less than 20% of the planting areas should be covered for each of SEA, SHA and EXA. The general health condition (good / fair / poor / dead) and survival rate (%) of individual species of planted trees will be recorded by direct observation for each of SEA, SHA and EXA. For steep and inaccessible area, the monitoring will be conducted with aid of a pair of binoculars. The table as shown in **Table 3.1** should be completed after each inspection walk in order to quantify the percentage of individuals in poor health and survival rate for each species in each of SEA, SHA and EXA. The health condition in the representative areas of each section (SEA, SHA and EXA) will be assumed to reflect the overall health condition of the planted trees in each of these areas.

Table 3.1: Inspection Record for Post-planting Monitoring

| Species | General health condition of individual plant species (good/ fair/ poor/ dead) | % of individual plant species in poor health condition | Survival rate of individual plant species (%) | Remarks |
|--------------------------------------|---|--|---|---------|
| Seaside Area (SEA) | | | | |
| % of planting area inspected: | | | | |
| <i>Acacia confusa</i> | | | | |
| <i>Ficus hispida</i> | | | | |
| <i>Cratoxylum cochinchinense</i> | | | | |
| <i>Macaranga tanarius</i> | | | | |
| <i>Mallotus paniculatus</i> | | | | |
| <i>Celtis sinensis</i> | | | | |
| Sheltered Area (SHA) | | | | |
| % of planting area inspected: | | | | |
| <i>Acacia confusa</i> | | | | |
| <i>Ficus hispida</i> | | | | |
| <i>Polyspora axillaris</i> | | | | |
| <i>Schefflera heptaphylla</i> | | | | |
| <i>Sterculia lanceolata</i> | | | | |
| <i>Celtis sinensis</i> | | | | |

| Species | General health condition of individual plant species (good/ fair/ poor/ dead) | % of individual plant species in poor health condition | Survival rate of individual plant species (%) | Remarks |
|--------------------------------------|---|--|---|---------|
| Exposed Area (EXA) | | | | |
| % of planting area inspected: | | | | |
| <i>Acacia confusa</i> | | | | |
| <i>Pinus massoniana</i> | | | | |
| <i>Ficus variegata</i> | | | | |
| <i>Reevesia thyrsoidea</i> | | | | |
| <i>Rhus succedanea</i> | | | | |
| <i>Choerospondias axillaris</i> | | | | |

The frequency of monitoring is proposed to be bi-monthly during the 3-year post-planting monitoring. Change of monitoring frequency shall be advised by the Project Ecologist / Botanist of the ET and approved by EPD and AFCD.

The Trigger and Action Levels for monitoring and Action Plan of the WCA are presented in **Table 3.2**.

Table 3.2: Trigger and Action Levels for Monitoring and Action Plan of the Woodland Compensation Area

| Parameters | Trigger and Action Levels | Action Plan |
|--------------------------|---|--|
| General Health Condition | Trigger Level: % of individual plant species in poor health condition >20% in any of SEA, SHA and / or EXA | <ul style="list-style-type: none"> the ET should inform OPC / Contractor appointed by OPC and IEC immediately; identify the cause(s) of the increased % in poor condition; advise OPC / Contractor appointed by OPC the necessity of replanting; Should replanting be considered necessary, OPC / Contractor appointed by OPC should start the replanting works within one month or in the appropriate planting season. |
| | Action Level: % of individual plant species in poor health condition >30% in any of SEA, SHA and / or EXA | <ul style="list-style-type: none"> the ET should inform OPC / Contractor appointed by OPC and IEC immediately; identify the cause(s) of the increased % in poor condition; advise remedial action and work out solution including change of species in replanting; and seek acceptance from AFCD; Once the remedial action has been accepted by AFCD, OPC / Contractor appointed by OPC should start implementing the remedial action within two weeks or as agreed with AFCD. |
| Survival of Plants | Trigger Level: Survival rate of individual plant species < 80% in any of SEA, SHA and / or EXA | <ul style="list-style-type: none"> the ET should inform OPC / Contractor appointed by OPC and IEC immediately; identify the cause(s) of the drop in survival rate; advise OPC / Contractor appointed by OPC the necessity of replanting; Should replanting be considered necessary, OPC / Contractor appointed by OPC should start the replanting works within one month or in the appropriate planting season. |

| Parameters | Trigger and Action Levels | Action Plan |
|------------|--|--|
| | Action Level: Survival rate of individual plant species < 70% in any of SEA, SHA and / or EXA | <ul style="list-style-type: none"> the ET should inform OPC / Contractor appointed by OPC and IEC immediately; identify the cause(s) of the drop in survival rate; advise remedial action and work out solution including change of species in replanting; and seek acceptance from AFCD; Once the remedial action has been accepted by AFCD, OPC / Contractor appointed by OPC should start implementing the remedial action within two weeks or as agreed with AFCD. |

3.2 Post-Planting Maintenance

The detailed maintenance programme for the 3-year post-planting period is shown in **Table 3.3**.

Table 3.3: Detailed Maintenance Programme for the 3-year Post-planting Period

| Maintenance action | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Watering * | 3/W | 3/W | 2/W | 2/W | 1/W | 1/W | 1/W | 1/W | 2/W | 2/W | 3/W | 3/W |
| Fertilizing | | | 1 | | | | | | 1 | | | |
| Pruning and selective thinning | R | | | R | | | R | | | | R | |
| Pest Control ** | R | R | R | R | R | R | R | R | R | R | R | R |
| Weeding *** | R | R | R | R | R | R | R | R | R | R | R | R |
| Replacement planting | | | R | R | R | R | R | R | R | R | | |
| Refuse collection | R | R | R | R | R | R | R | R | R | R | R | R |

Remarks:

The integer (i.e., 1,2,3) = the number of times a service to be completed each month; W = Week; R = as required

* Frequency of watering as shown is for reference only and should be adjusted according to site conditions and rainfall

** To minimize impact on establishing insect communities in the WCA, pest control will be undertaken only as required

*** Only invasive species, such as *Leucaena leucocephala* and *Mikania micrantha*, weeds, unwanted species and parasitic plants on the whip tree planting will be removed during weeding

3.3 Reporting

After each bi-monthly post-planting monitoring event, a completed inspection record (refer to **Table 3.1**) should be provided to the OPC, IEC and relevant parties for information. If there are any adverse findings for the post-planting monitoring event causing Trigger Level or Action Level for monitoring, the ET should inform OPC, IEC and relevant parties according to the Action Plan (refer to **Table 3.2**) and follow up necessary actions. All monitoring findings, site observations, recommendations on woodland management and remedial measures taken shall be reported and summarised in the periodic Environmental Monitoring and Audit (EM&A) Reports, which should be submitted every six months, and the 3-year Post-planting Review Report in accordance with Condition 2.7 (b) of the EP. The 3-year Post-planting Review Report shall be prepared by the Qualified Ecologist(s) to demonstrate that Condition 2.7 (a) has been fulfilled and to recommend the need for further monitoring with justification. AFCD shall be included in the circulation list of the EM&A reports and the 3-year Post-planting Review Report.

4 Conclusion

The Woodland Compensation Plan has been developed to facilitate the establishment of the WCA to mitigate for the loss of woodland habitat due to the implementation of the Project. The WCA is divided into three different areas based on their micro-environment. Different tree planting mixes are proposed in these areas with reference to their specific site conditions. To ensure the planting works are properly implemented, monthly monitoring is proposed throughout the planting phase. The frequency of monitoring is proposed to be bi-monthly during the 3-year post-planting monitoring. The monitoring findings and recommendations will be reported and summarised in periodic EM&A reports and in the 3-year Post-planting Review Report. The necessity for further monitoring shall be reviewed after the 3-year post-planting monitoring programme.

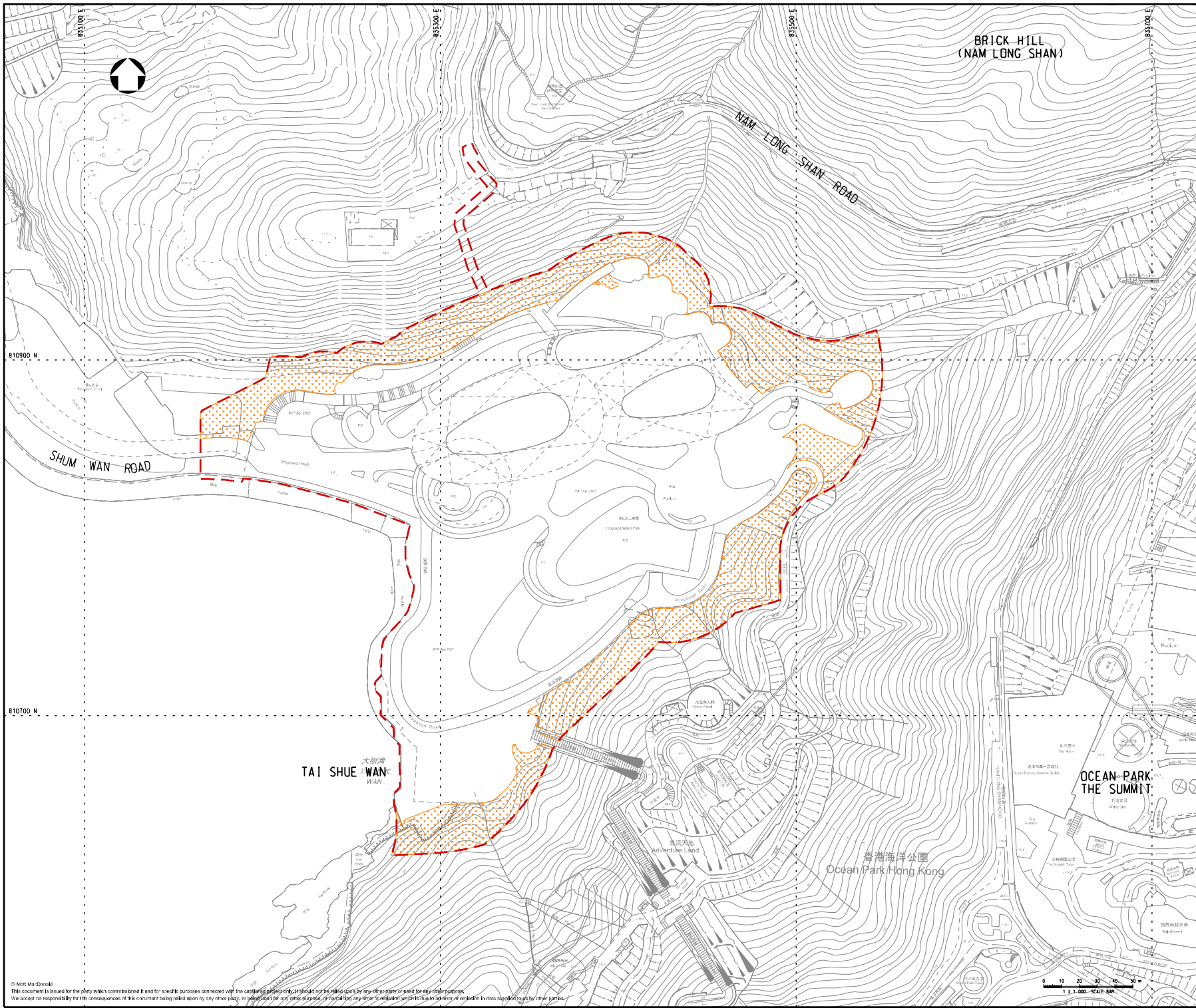
Appendix A Implementation Schedule

Appendix A – Implementation Schedule

| EIA ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of measures/ Timing of completion of measures | Implementation Agent | Implementation Stage ⁽¹⁾ | | | | Relevant Legislation & Guidelines |
|--|------------------|---|---|---|-------------------------------------|-----|----|-----|-----------------------------------|
| | | | | | Des | Con | Op | Dec | |
| Cat. 1 Key / specific proposed mitigation measure | | | | | | | | | |
| Ecological Impact | | | | | | | | | |
| S10.7 | 8.3 | <p>Compensation for Woodland Habitat</p> <ul style="list-style-type: none"> Provision of a Woodland Area of about 1.62 ha, which includes 0.84 ha woodland compensation on-site and 0.78 ha on-site woodland reinstatement, to mitigate for permanent loss of woodland habitat. In the woodland compensation area, whips should be planted with predominately native tree species similar to the affected woodland, such as <i>Celtis sinensis</i>, <i>Cratoxylum cochinchinense</i>, <i>Polyspora axillaris</i> and <i>Sterculia lanceolata</i>. | Location of Woodland Compensation Area indicated in Figure 1.1 / Before and throughout construction stage / Until completion of all construction activities | Contractor appointed by OPC | ✓ | ✓ | ✓ | | EIAO-TM ⁽²⁾ |
| Landscape and Visual Impact (Operation) | | | | | | | | | |
| Table 12.14 (OP07) | Table 9.2 (OP07) | <p>Woodland Compensation</p> <p>1.53ha of affected woodland is recommended to be reinstated / compensated by 1.62ha of whip tree planting adjacent to the existing unaffected woodland and tall shrubland. Native species should be proposed as far as practicable to re-create a native landscape, restore the ecological habitats and blend in with the existing native vegetation.</p> | Project area / During design stage / Throughout operation phase | Design Architect / Contractor appointed by OPC | ✓ | | ✓ | | EIAO-TM |
| Cat. 2 Submission required post EIA stage | | | | | | | | | |
| Ecological Impact (Construction) | | | | | | | | | |
| S10.7 | 8.3 | <p>Woodland Compensation Plan</p> <p>A Woodland Compensation Plan shall be prepared and submitted to AFCD for approval no later than one month prior to commencement of site clearance.</p> <p>The plan shall include but not limited to the following:</p> <ul style="list-style-type: none"> Timing of planting works Planting location Species, size and number of trees Monitoring methodology Action Plan | Location of Woodland Compensation Area indicated in Figure 1.1 / Before construction stage / No later than one month prior to commencement of site clearance | Qualified botanist / ecologist of the ET appointed by OPC | ✓ | | | | EIAO-TM |
| Landscape and Visual Impact (Operation) | | | | | | | | | |
| Table 12.14 (OP02) | Table 9.2 (OP02) | <p>Compensatory Tree Planting</p> <p>Existing trees to be felled should be compensated as far as practicable. Native species should be proposed as far as practicable to re-create a native landscape, restore the ecological habitats and blend in with the existing native vegetation. A compensatory tree planting proposal should be submitted together with the tree removal application for approval by relevant authorities in accordance with LAO Practice Note No. 7/2007 ("LAO PN No. 07/2007"). It is recommended that approximately 608 heavy standard trees and approximately 18,202 whip trees could be planted on-site. The availability of off-site compensatory tree planting area is still subject to further investigation and agreement with relevant authorities.</p> | Project area / During design stage / Throughout operation phase | Design Architect / Contractor appointed by OPC | ✓ | | ✓ | | - EIAO-TM - LAO PN No. 07/2007 |

Notes: (1) Des = Design ; Con = Construction ; Op = Operation ; Dec = Decommissioning ; (2) EIAO-TM = Technical Memorandum of the Environmental Impact Assessment Ordinance

Figures



Notes

Key to symbols

- PROJECT BOUNDARY
- PROPOSED WOODLAND COMPENSATION AREA

Reference drawings

| P1 | SEP 21 | MNG | FIRST ISSUE | HY | EC |
|-----|--------|-------|-------------|-------|-------|
| Rev | Date | Drawn | Description | Ch'kd | App'd |

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Project

**TAI SHUE WAN DEVELOPMENT
AT OCEAN PARK**

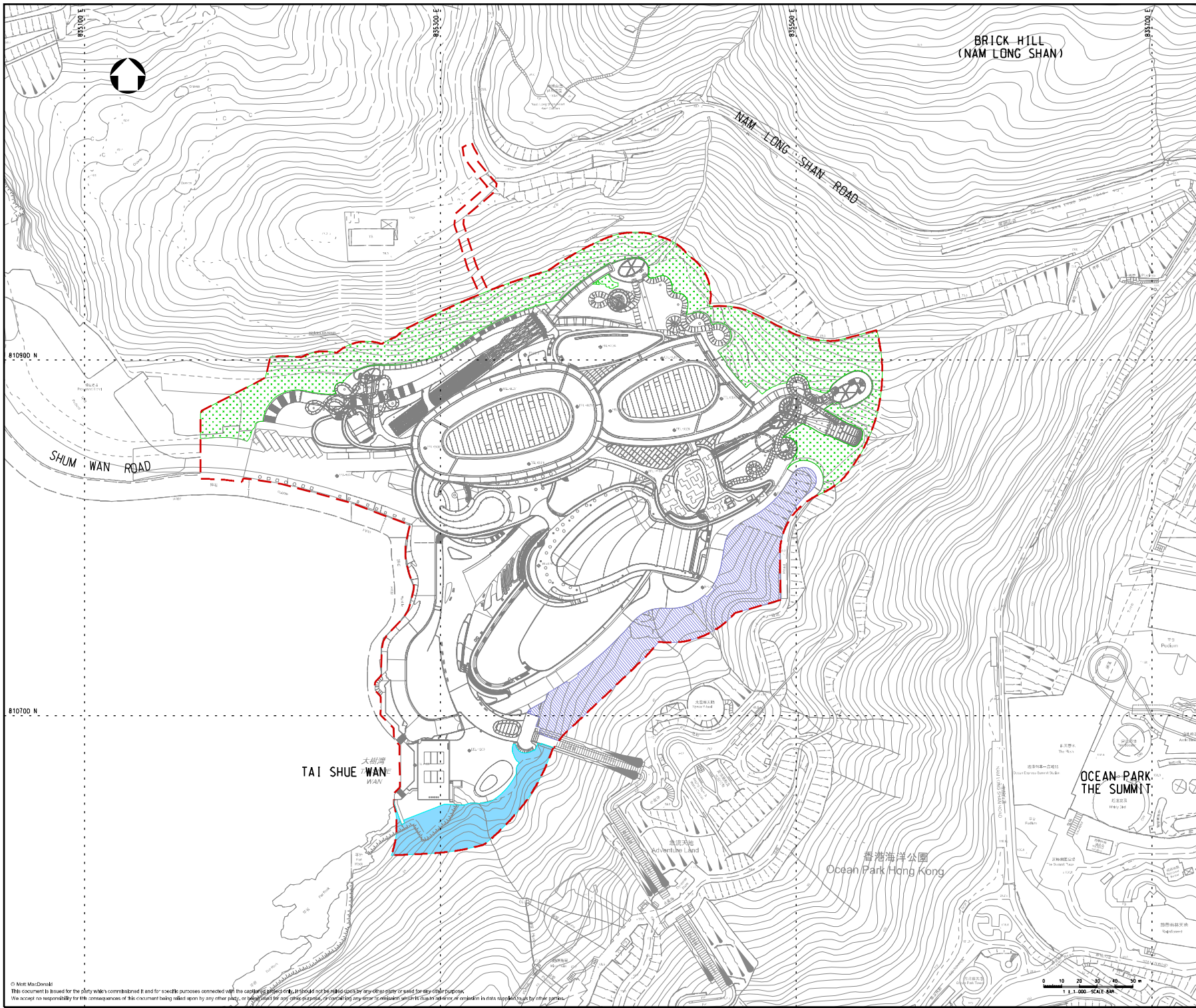
Title

**LOCATIONS OF WOODLAND
COMPENSATION AREA**

| | | | |
|--------------|--------|--------------|----|
| Designed | HY | Eng check | GC |
| Drawn | MNG | Coordination | HY |
| Dwg check | HY | Approved | EC |
| Scale: at A1 | Status | Rev | P1 |
| 1:1000 | | PRE | P1 |

Drawing Number

FIGURE 1.1



Notes

Key to symbols:

- PROJECT BOUNDARY
- EXPOSED AREA (0.96ha)
- SHELTERED AREA (0.46ha)
- SEASIDE AREA (0.20ha)

Reference drawings

| Rev | Date | Drawn | Description | Ch'kd | App'd |
|-----|--------|-------|-------------|-------|-------|
| P1 | SEP 21 | MNG | FIRST ISSUE | HY | EC |

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**TAI SHUE WAN DEVELOPMENT
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Title

**DIFFERENT TYPES OF WOODLAND
COMPENSATION AREA**

| | | | |
|--------------|--------|--------------|----|
| Designed | HY | Eng check | GC |
| Drawn | MNG | Coordination | HY |
| Dwg check | HY | Approved | EC |
| Scale: at A1 | Status | Rev | |
| 1:1000 | PRE | P1 | |

Drawing Number

FIGURE 2.1

