

PART 2 – KEY STEPS IN TREE RISK MANAGEMENT**2.1****EFFECTIVE TREE RISK MANAGEMENT**

Tree Owners are required to undertake proper tree risk assessment and mitigation measures to minimise risk of tree failure. This requires engagement of suitable Qualified Professionals for arboricultural works. The following table illustrates the steps to be taken by Tree Owners for effective tree risk management.

Nº	Steps
1	Engaging suitable qualified professionals
2	Knowing your tree stock
3	Undertaking tree risk assessment
4	Mitigating tree risk
5	Keeping records

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PART 2 – KEY STEPS IN TREE RISK MANAGEMENT**2.2 KNOWING YOUR TREE STOCK**

A good tree inventory can facilitate Tree Owners to establish a maintenance programme and prepare budget estimation for maintenance works.

N ^o	Actions
1	Ascertain the extent of areas with trees on the property.
2	Engage Qualified Professional to prepare a tree inventory to include: <ul style="list-style-type: none"> ▪ Basic tree information, such as tree identity number, species, size, health and structural condition; and ▪ Site information, such as number of each tree species, photos and location plan.
3	For new tree planting, request the designer to prepare a tree inventory or as-built planting record as part of design service.
4	Check for completeness and accuracy of the tree inventory.
5	Update the tree inventory regularly every year and as required.

Appendix 3 - Sample Format of Tree Inventory

PART 2 – KEY STEPS IN TREE RISK MANAGEMENT**2.3 UNDERTAKING TREE RISK ASSESSMENT**

The purpose of tree risk assessment (TRA) is to identify potential tree risks and carry out mitigation measures in a timely manner to reduce the risks.

N ^o	Actions
1	Ensure all the trees on your property are included in TRA.
2	Plan and conduct TRA before the onset of the wet season for trees on target areas ² , such as footpaths, children play areas, sitting out areas and vehicular access, etc.
3	Undertake emergency inspection ³ by management staff of property management company or landscape / arboricultural contractor to inspect the obvious damage, tree stability and immediate hazard (e.g. fallen tree, broken branches, uprooting, etc.) posing to the public soon after inclement weather such as rainstorm and typhoon.
4	If any obvious defects are observed in the inclement weather inspection, Qualified Professional can be engaged to undertake a detailed tree inspection and mitigation measures as necessary.

² Target areas are frequently used areas where tree failure will pose a hazard to public safety, damage to property or cause disturbance to human activity.

PART 2 – KEY STEPS IN TREE RISK MANAGEMENT**2.3.1 Identify Target Areas**

Nº	Actions for Identifying Target Areas
1	Identify the target areas within / adjacent to your property according to the intensity and frequency of use.
2	Property managers and Qualified Professionals to agree on delineation of target areas.
3	Allocate resources to undertake tree risk assessment for trees within the target areas.

PART 2 – KEY STEPS IN TREE RISK MANAGEMENT**2.3.2 Undertake Tree Risk Assessment on Tree Basis**

Nº	Actions for Form 1
1	<p>Make reference to the latest edition of “Guidelines for Tree Risk Assessment and Management Arrangement” (www.greening.gov.hk/filemanager/content/pdf/tree_care/TRAM_2015_R8-Guidelines_for_TRAM_Arrangement.pdf) issued by the GLTMS in Appendix 4 for carrying out Tree Group Inspection (Form 1).</p>
2	<p>Undertake Tree Group Inspection (Form 1) to facilitate an initial screening of trees within target areas.</p>
3	<p>Undertake mitigation measures for trees with major defects that merit attention.</p>
4	<p>Identify trees that require for detailed Individual Tree Risk Assessment (Form 2).</p>
5	<p>Record all the findings in Form 1: Tree Group Inspection Form.</p>

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Nº	Actions for Form 2
1	Make reference to the latest edition of “Guidelines for Tree Risk Assessment and Management Arrangement” (www.greening.gov.hk/filemanager/content/pdf/tree_care/TRAM_2015_R8-Guidelines_for_TRAM_Arrangement.pdf) issued by the GLTMS in Appendix 4 for carrying out individual tree risk assessment (Form 2).
2	Make reference to GLTMS guidelines and “Examples of Common Tree Defects” in Appendix 5 for tree risk assessment.
3	Rate the tree hazard with recommendations on follow-up mitigation measures to address the identified defects and tree problems.
4	Record all the findings in Form 2: Tree Risk Assessment Form.

Appendix 4 - Guidelines for Tree Risk Assessment and Management and Arrangement

Appendix 5 - Examples of Common Tree Defects

PART 2 – KEY STEPS IN TREE RISK MANAGEMENT**2.3.3 Mitigate Tree Risk**

Nº	Actions
1	Undertake appropriate mitigation measures as recommended in tree risk assessment in a timely manner.
2	Mitigation measures include: <ul style="list-style-type: none"> ▪ Cordon off the tree fall zone before mitigation works take place. ▪ Apply pest and disease control. ▪ Pruning of broken or dead branches. ▪ Install supporting or cabling system. ▪ Continuous monitoring of defect, e.g. cavity with wounded wood development. ▪ Arrange tree removal.
3	Ensure mitigation measures are undertaken properly and under supervision of Qualified Professionals.

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2.4 TREE REMOVAL, EMERGENCY RESPONSE AND SAFETY PRECAUTIONS**2.4.1 Tree Removal Procedures and Compensatory Planting**

If tree removal is recommended after tree risk assessment, the Tree Owner is required to submit an application for tree removal to LandsD for approval if there is a tree preservation clause in the lease concerned. LandsD may impose conditions such as transplanting, compensatory planting or replanting as deemed appropriate. Section 1.7.5 in the handbook is relevant.

2.4.2 Emergency Tree Removal / Pruning due to Natural Cause

For emergency tree removal or pruning in a private lot with a tree preservation clause in lease, the Lot Owner concerned must report the case to LandsD within 21 days after the tree pruning or removal. Section 1.7.5 in this handbook is relevant.

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Nº	Actions
1	Follow requirements stated in the “Lands Administration Office Practice Note No. 7/2007” or its subsequent updated version to carry out emergency tree removal / severe pruning work due to natural cause, or under other fully justified emergency situations.
2	Take full photographic record on the concerned tree(s) before removal or severe pruning of the damaged tree(s) due to natural causes or emergency situations where safety is at stake.
3	Photograph taking and tree removal / severe pruning can be carried out in parallel for expeditious emergency action if considered necessary.
4	In any case, inform LandsD within 21 calendar days after the incident supporting with a tree report of the concerned trees, photographic record and compensatory planting proposal, where applicable.
5	Upon approval of the compensatory planting proposal, carry out compensatory planting in accordance with the requirements as stated in the Lands Administration Office Practice Note No. 7/2007 or subsequent updated version.

2.4.3 Emergency Tree Failure Incident

Call 999 for assistance in emergency situation if a tree poses imminent danger of collapse and threat the human safety.

PART 2 – KEY STEPS IN TREE RISK MANAGEMENT**2.4.4 Safety Precautions in Tree Works**

Nº	Actions
1	Follow the requirements in Occupational Safety and Health Ordinance (Chapter 509) to ensure the safety and health at work of all employees / contractors.
2	Verify that all contractors have qualified safe work policies and implementation procedures.
3	Provide a safe access for carrying out tree works, especially for trees located on slopes and retaining walls.
4	Make reference to the “Guidelines on Safe Access for Slope Maintenance” (www.cedd.gov.hk/eng/publications/geo_reports/doc/er136/er136.pdf) issued by the Geotechnical Engineering Office of the Civil Engineering and Development Department.
5	Refer to the “Guidelines on Arboriculture Occupational Safety and Health” (www.greening.gov.hk/filemanager/content/pdf/tree_care/OSH_Guidelines_2012_Dec_Issue_e.pdf) issued by the GLTMS to implement adequate occupational safety and health measures in carrying out the tree works.

Appendix 6 - Guidelines on Arboriculture Occupational Safety and Health

PART 2 – KEY STEPS IN TREE RISK MANAGEMENT**2.5 KEEPING RECORDS**

Complete comprehensive and retrievable records of tree inspection results and mitigation measures can demonstrate that Tree Owners have taken reasonable care in tree management.

Nº	Actions
1	Keep a complete set of both hardcopy and softcopy of tree inspection findings and recommendations properly and systematically.
2	Records on tree works include: <ul style="list-style-type: none"> ▪ Tree inventory. ▪ Records of tree risk assessment. ▪ Records of maintenance inspections; and maintenance works. ▪ Recommended mitigation measures and actions taken. ▪ Photo records.
3	Make reference to the “Sample of Master List of Documents and Record of Tree Works” in Appendix 7.

Appendix 7 - Sample of Master List of Documents and Record of Tree Works