Andrew Belson
Arboricultural Consultant

1 Soke Road
Newborough
Peterborough
PE6 7QT

T: 01733 810555
F: 01733 810555
M: 07713 513808
E: Andrewmbelson@aol.com
www.treesurvey-uk.co.uk

Tree Survey, Arboricultural Implications Assessment Report and Arboricultural Method Statement

Relating to trees growing at The Butterfly and Wildlife Park, Long Sutton, Cambridgeshire

Client: Moor Solar
c/o Haskoning UK Ltd
Rightwell House
Bretton
Peterborough
PE3 8DW

Ref: 2003.AIA.LongSutton.RH A

Date of Inspection: 20th January 2012

Layout Considered: 716.PL.03F

Prepared by: Andrew Belson

VAT registration no: 903814048

Section
1

Instructions

1.1 This report was commissioned by Haskoning UK Ltd on behalf of the Client in an oficial order, with instructions to illustrate the findings of the arboricultural survey of the trees that may affetct the proposal or be affected by the proposal and to produce documents to support a Planning Application.

1.2 Therefore, the objectives of this report are as follows:

- To illustrate the findings of the arboricultural assessment of the trees on the site
- To produce an Arboricultural Constraints Plan
- To comment on the Arboricultural Implications of the proposed development.
- To provide details of appropriate tree protection methods

Section
2

Report Limitations

2.1 As trees and shrubs are living organisms whose health and condition can change rapidly, conclusions and recommendations are only valid for one year. The health, condition and safety of trees should be checked regularly, preferably annually.

2.2 I did not examine the soil or take samples for analysis, as this is a preliminary report. Should soil samples be required, this will be highlighted in the report.

2.3 The trees were examined from ground level, as this is a preliminary report. Should further, more detailed information be required, this will be highlighted in the report.

Section
3

Tree Protection

3.1 Where Local Planning Authorities can assess trees as beneficial to the wider community in terms of their amenity value, they may be protected by a Tree Preservation Order (TPO).

3.2 Work may be permitted on a tree protected by a TPO after an application has been submitted to the LPA and written permission granted. Once an application has been made, a representative of the LPA will inspect the trees, notices will be posted so that affected parties can object or make representations and a decision will be made within an eight-week period.

3.3 If a decision has not been made within an eight-week period, the person making the application can apply to the DCLG for Non-Determination. If the LPA refuses the application, the applicant still has the right to appeal.

3.4 In certain areas classified as Conservation Areas, all trees with a stem diameter of 75mm (measured at 1.5m above ground) are protected by Conservation Area legislation. This site does not lie within a Conservation Area.

3.5 If trees protected by a TPO are cut-down, topped, lopped, uprooted or wilfully damaged or destroyed, the owner of the tree(s) and the contractor responsible for the work can both be legally prosecuted. The current maximum fine is £20,000 per tree at the Magistrates Court or unlimited fine at the Crown Court.

3.6 Trees that are dead, dying or dangerous are exempt from legislation. It is common good practice to notify the LPA of intention to carry out work to trees that fall into these categories, preferably with some notice (e.g. one working week).

3.7 A leaflet produced by the DCLG (Protected Trees), covers the issues raised by this legislation (enclosed).

3.8 I have not been made aware of any TPO that may include trees on this site but neither have I checked the status of the trees inspected because it was not part of my instruction.

Section
4

Site Information

4.1 The trees inspected are situated both on the site and on adjoining land.

4.2 The Architect has provided a proposed layout for the site. This drawing has been used to produce the plan appended to this report (see Appendix B). It is this drawing that is considered at section 8.3.

4.3 The proposal is for the demolition of the existing Butterfly Park and for the development of the site with a sustainable development of 87 homes with access off Roman Bank.

4.4 The site is reasonably level.

Section
5

Tree Inspection

5.1 IDENTIFICATION

Most of the trees have been tagged with numbered aluminium discs to aid easy identification. One tree was not tagged and has been numbered with the prefix 'NT'. Twenty one Groups were identified and designated a letter. Reference to the trees' locations can be made using the plans appended to this report (see Appendix B).

5.2 ASSESSMENT

The trees were assessed on the following criteria, which relates directly to BS5837: 2012

- Species – gives information on expected growth, habit, life expectancy and suitability for situation
- Age Class – Indicates the tree's stage of growth in a normal life span.
- Remaining contribution (in years) – information used to assess the retention category of the tree and potential future growth.
- Diameter of main stem at 1.5 metres above ground – information to use in calculating the Root Protection Area (RPA). Where a tree is multi-stemmed, its RPA is calculated in accordance with BS5837: 2012 Annex C and D.
- Physiological and structural condition
- Category grading in accordance with Table 1 BS5837: 2012, reflecting the tree's landscape function and condition.

5.3 FINDINGS

5.3.1 The details of the tree survey can be seen in Appendix A

Section 6

Potential Impact of Development on Trees

6.1 Construction can impose enormous strain on trees through damage to, or loss of root mass. The root system is the part of the tree most susceptible to damage during construction.

Any retained trees could be at risk of root damage through:

- Demolition and site clearance
- Siting of services and excavation causing root severance
- Access for plant and vehicles which may cause compaction of the root zone leading to root death through asphyxiation
- Storage of materials or spillage of damaging substances such as fuel oil, petrol or lime, which can kill roots.
- The raising of soil levels which can kill roots through asphyxiation
- The lowering soil levels which removes root mass, including many of the fine water collecting roots and beneficial humus layer

6.2 Construction can threaten the aerial parts of the tree through:

- Physical damage by contact from various plant and delivery vehicles
- The lighting of fires
- Erection of scaffolding

6.3 The British Standard 5837: 2012 'Trees in Relation to Design, Demolition and Construction - Recommendations' gives guidance that is more detailed on the implications of constructing near to trees

6.4 The symptoms that can arise from root damage as identified above can take several years to become evident

6.5 A development may affect the way the wind passes the retained trees, through raising its speed or direction. This may leave weakened or newly exposed trees liable to wind throw.

Section
7

Potential Impact of Trees on Development

7.1 It is desirable to retain trees as they add maturity and structure to a site; provide shade and amenity value; screening or acoustic barrier.

7.2 The Root Protection Area (RPA) required for each tree may affect layout of road, footpath, housing, services and other built structures. In certain situations, it may be possible to move the RPA by up to 20% but this is rarely possible and only applies to open grown trees, i.e. not avenues, rows or groups. Additionally, up to 20% of the RPA can be paved with a sealed surface, providing no excavation takes place.

7.3 The shade footprint that may be cast by trees identified for retention at an expected maximum height (given their individual circumstances) has been shown on the drawings as a hatched quadrant. The shade area is based on a solar inclination of 45^0 shown from north west to due east, as suggested by BS5837. This simplifies the actual shade area that may affect the site but it is considered to be a good representation of the area in question. Building within the shade area can be acceptable where internal layout, fenestration or proposed use of buildings means they are not adversely affected by a lack of daylight received. Some shading may be welcomed in the summer when solar gain can make room temperatures uncomfortable. It should also be noted that deciduous trees only cast shade for seven or eight months of the year, depending on species.

7.4 Whilst trees may be small at the time of survey, future growth may be considerable, both in height and radial crown spread

7.5 Leaves falling from any of the retained trees may block gutters or may become a potential slip hazard.

7.6 Trees can affect the type and depth of foundations used.

7.7 Some trees are not suitable for retention due to brittle wood, poisonous berries or leaves, prickles and thorns.

7.8 Trees can add value to property.

7.9 Very large trees can worry some people because they perceive the trees to be imposing and dangerous.

Section
8

Conclusions

8.1 Health, Condition and Safety and Other Matters Arising From the Survey

8.1.1 The details of the arboricultural survey are to be found at Appendix 'A' of this report. The recommendations were made at the time in the context of the site usage at the time of the survey in accordance with BS5837: 2012.

8.1.2 The age class of the trees on the site is diverse, ranging from very young to over-mature. Many of the young trees were found to be of poor form, with weak main stem or branch unions. There trees have been graded 'C' or 'U' according to the severity of their defects.

8.1.3 The Ash trees near the northern boundary of the site are in decline but are of arboricultural interest due to the habitat offered by the defects in their structures. The trees have generally been 'stubbed' (= high coppice) in the past, leading to a number of stems emanating from a short main stem. 'Veteran' tree management is recommended for tags 9998 – 0004 whereby the trees stems are removed in batches over a number of growing seasons, allowing the trees to continue to function using the retained portion of their crown.

8.1.4 The amenity value of the trees is broadly restricted to site.

8.2 ARBORICULTURAL CONSTRAINTS

8.2.1 The plan appended to this report (2003.AIA – see appendix 'B') shows the constraint of the Root Protection Area (RPA) as a magenta circle or polygon around each tree or group of trees. This is the area where ideally, if a tree is retained, no excavation should take place; the soil level should not be raised or lowered; no materials can be stacked; there must be no contamination and no services should be routed.

8.2.2 The shade footprint that may be cast by the trees has been shown as a grey hatch. The shade area is based on a solar inclination of 45^0 in line with the median suggested by BS5837: 2012 that covers the main daylight hours. Building within the shade area can be acceptable where internal layout, fenestration or proposed use of buildings means they are not adversely affected by a lack of daylight received. Some shading may be welcomed in the summer when solar gain can make room temperatures uncomfortable.

8.2.3 The height of the lower crown above ground is shown in the survey (see Appendix A). Lifting (or raising) the crown to a set height above ground in order to install fences, achieve clearance over the driveway or allow access for plant and machinery would be an acceptable arboricultural practice. Crown spread may in its self be a constraint where it is greater than the RPA radius. Reference must be made to the Tree Constraints Plan in Appendix 'B' or the data in the tree survey schedule in Appendix 'A'.

8.2.4 It is possible to use area within the RPA for footpaths and paving providing no excavation takes place. This will necessitate either the use of a cellular confinement geotextile such as 'CellWeb' (www.geosyn.co.uk) where a water and air-permeable surface is required or paving with a sealed surface that covers no more than 20% of the total RPA and no more than 3m wide. Note that the use of no-dig techniques will increase the finished level of paved surfaces.

8.3 Arboricultural Implications of Layout 716.PL.03F

8.3.1 ACCESS

8.3.1.1 Access is proposed off Roman Bank at a single point to serve the whole development. This has no arboricultural implications.

8.3.2 LAYOUT

8.3.2.1 The layout directly implicates the loss of the following trees:

- Lime 9989, 9990 & 0025
- Group A
- Bullace 9991 & 0016
- Field Maple 9992
- Larch 9993
- Silver Birch 9994, 0017 & 0022
- Mountain Ash 9995
- Crab Apple 9996, 0014 & 0018
- Sycamore 0006
- Ash 0007
- Maple 0008. 0023
- Apples 0009
- Willows 0010, 0011
- Group B
- Group E
- Group G
- Group H
- Group J
- Group K
- Group L
- Group M
- Group N
- Eucalyptus 0012, 0013
- Group P
- Group Q
- Group R
- Alder 0019
- Cherry 0020 & 0015
- Scots Pine 0021
- Leyland Cypress 0024
- Group S
- Group T
- Group U

Whilst the loss of the trees is regrettable, it is necessary in order to make proper re-use of the land. Generous compensatory planting is proposed in detail in a layout that relates directly to the scheme. The older, more important trees in ecological terms are to be retained to the north of the development.

8.3.2.2 There are minor incursions indicated into the Root Protection Areas of Ashes 9998 – 0003. I consider that due to the disproportionately large RPA for the size of the tree and the fact that the area within the trees' RPAs has been in use as a car park (resulting in localised compaction and inhibiting root activity) this is unlikely to have any detrimental effect on the trees' health, condition or safety.

8.3.3 FOUNDATION DESIGN

8.3.3.1 Subject to the soil type found on site and an engineer's appraisal, the trees (whether retained or removed) may influence foundation design.

8.3.4 SHADE AND LIGHT LOSS

8.3.4.1 As the retained trees are all to the north of the development, shade is not an issue in the layout proposed.

8.3.5 FUTURE GROWTH

8.3.5.1 There is little future growth potential in any of the retained trees on site.

8.3.6 PRACTICAL EXECUTION

8.3.6.1 There is ample space for the receipt, storage and handling of materials and for the movement of plant and machinery without placing extra pressure on the trees. However, in order to avoid accidental damage, a robust tree protection scheme must be implemented before development begins in order to avoid accidental damage. Full details of a tree protection methodology are given at 9.3 below.

8.3.7 SERVICES

8.3.7.1 Services are not shown on the drawing. It appears possible to provide all the necessary piped service connections and to locate soakaways without affecting the trees.

Section
9

Recommendations

9.1 TREE WORK

9.1.1 Remove the following trees and Groups as denoted by the red crosshatch on drawing 2003.TPP:

- Lime 9989, 9990 & 0025
- Group A
- Bullace 9991 & 0016
- Field Maple 9992
- Larch 9993
- Silver Birch 9994, 0017 & 0022
- Mountain Ash 9995
- Crab Apple 9996, 0014 & 0018
- Sycamore 0006
- Ash 0007
- Maple 0008. 0023
- Apples 0009
- Willows 0010, 0011
- Group B
- Group E
- Group G
- Group H
- Group J
- Group K
- Group L
- Group M
- Group N
- Eucalyptus 0012, 0013
- Group P
- Group Q
- Group R
- Alder 0019
- Cherry 0020 & 0015
- Scots Pine 0021
- Leyland Cypress 0024
- Group S
- Group T
- Group U

9.1.2 Remove dead wood from the crowns of the retained trees and consider instigating 'Veteran Tree Management' on Ashes 9998 – 0006.

9.1.3 Remove Ashes from Orchard Group F; remove any dead trees and plant new trees in gaps as appropriate.

9.1.4 General Notes on Treework

- Tree work is skilled and potentially dangerous work, which must be carried out by trained and certificated staff working to BS3998: 2010 and working in accordance with the various Regulations within the Health and safety at Work Act 1974
- Contractors must have Public Liability Insurance (preferably £5 million) and Employer's Liability Insurance (preferably £10 million).
- Machinery and equipment must be maintained, inspected and operated in accordance with the various Regulations within the Health and Safety at Work Act.

9.2 Implement a tree protection scheme before development starts on site. Details are described in 9.3 – 9.4 below.

9.3 PROTECTION OF TREES DURING WORKS

Treework

9.3.1 As a first operation, the Treework will be carried out as-per 9.1 above.

Protective Fencing

9.3.2 Once the Treework is complete, protective fencing to Fig 2. BS5837: 2012 will be erected where shown by the broad blue lines on drawing 2003.TPP and protective fencing to Fig 3. BS5837: 2012 will be erected where shown by the broken blue lines on drawing 2003.TPP.

9.3.3 Weather proof notices stating: 'PROTECTED AREA – DO NOT ENTER' will be erected on the fencing (example in Appendix B) not less than 10m apart

9.3.4 Temporary access to the protected area will be by permission of the LPA arboriculturalist.

9.3.5 The site manager will assess the integrity of the protective fencing protection measures constantly. Any shortcomings will be rectified to his satisfaction.

9.3.6 Fencing will remain in place until the end of the construction period.

Ground Protection

9.3.7 In conjunction with the erection of the fencing, the areas denoted by the blue crosshatch on drawing 2003.TPP will be protected with either a hired-in sheeting system such as 'Ground Guards' or a double layer of scaffold planks.

9.3.8 The ground protection will be retained in-situ until the end of the main construction period.

Demolition

9.3.9 Once the fencing has been erected and the ground protection installed, the demolition will be carried out.

9.3.10 The demolition will be carried out with care and with due consideration of the retained trees. It is important that the demolition contractor is fully aware of the trees importance and it may be beneficial to have an arboriculturalist in attendance during works near the trees. Machines will be operated whereby no part of their structure comes into contact with the trees.

9.3.11 Plant will be refuelled and serviced at least 10 metres from the edge of the Root Protection Areas.

9.3.12 Any plant with known fuel or other fluid leaks will only be operated near the trees whereby the leaks can be retained in absorbent mats or trays.

9.3.13 There will be no fires lit on site where flames can reach within 5m of the edge of a tree's crown, taking the size of the fire, wind speed and direction into account.

Services

9.3.14 Any excavation for the installation of services will be carried out at least 1m from any protective fencing or ground protection.

Landscaping

9.3.15 At the appropriate time in the construction schedule but after the main development is complete, the protective fencing and ground protection may be removed to allow for the erection of fences and installation of paths.

9.3.16 Any cultivation within the formerly fenced areas (within the retained trees' Root Protection Areas) will be carried out by hand only. There will be no machine cultivation within RPAs.

Other Protection measures

9.3.17 No storage or discharge of materials within 5 metres of the tree bole

9.3.18 No mixing of cement or dispensing of fuel or chemicals within 10 metres of the tree bole

9.3.19 No stripping of topsoil or excavation to occur within the RPA

9.3.20 Soil levels within the RPAs will not be increased or reduced.

9.3.21 Any damage that occurs to the trees during construction must be rectified to BS3998: 2010

9.3.22 Trees must not be used as anchor points for winching or for supporting wires/cables.

9.4 FUTURE MANAGEMENT

9.4.1 Protective fencing and ground protection will only be removed once construction is complete.

9.4.2 Retained trees will be inspected post-development and aby remedial works carried out to BS3998: 2010.

I hope you find this report satisfactory, please do not hesitate to contact me at my office if I can be of further assistance.

Signed: Date: 15th May 2012



A M Belson Dip.Arb.RFS, M.Arbor.A, Tech.Cert.Arbor.A

Appendix
A

Tree Survey

Key to Survey

Height	Measured with clinometer where considered critical or estimated
Crown spread (max over site)	In metres
Remaining Contribution	Estimated number of years the tree may contribute in a safe condition
Main Stem Diameter	Measured at 1.5 metres above ground of just above root flare for multi-stemmed trees (ARF).
Condition	Good = No visible defects seen Reasonable = Some defects seen but none that contribute significantly to the overall health and safety of the tree Poor = Defects or health issues that contribute significantly to the overall health and safety of the tree
Age Class	Y = Young (Less than 1/3 of normal expected life) M/A = Middle Age (1/3 – 2/3 of normal expected life) M = Mature O/M = Over-mature or in decline
RPA (Radius)	Distance in metres from centre of tree to achieve a circular Root Protection Area
RPA (Area)	Root Protection Area in square metres.

Grading Categories:

U Trees in poor condition; value lost within 10 years; serious defects, dead, in irreversible decline, infected with pathogens significant to health of other trees nearby

A1 Trees of high quality and value; offering at least 40 years' contribution; particularly good example of species

A2 Trees of high quality and value; offering at least 40 years' contribution; screening or softening effect

A3 Trees of high quality and value; offering at least 40 years' contribution; conservation, historical or other value

B1 Trees of moderate value; offering at least 20 years' contribution; slightly impaired condition but remediable

B2 Trees of moderate value; offering at least 20 years' contribution; distinct landscape feature as a group or woodland.

B3 Trees of moderate value; offering at least 20 years' contribution; trees with clearly identifiable conservation or other cultural benefits.

C1 Trees of low quality and value; at least 10 years' contribution; trees not qualifying in higher categories

C2 Trees of low quality and value; at least 10 years' contribution; groups or woodlands without significant landscape value, trees of low or temporary landscape value

C3 Trees of low quality and value; at least 10 years' contribution; trees with limited conservation or other value

Recommendation: Recommended course of action made irrespective of proposed site layout.

The root systems of the trees were not inspected

Tag No. or ref.	Species	Age Class	Ø m/s @1.5	Stems	Height	Lower crown height	Grade	Crown Spread (max)	RPA radius	RPA (m^2)	Remaining Contribution	Condition	Comments	Recommendations
9989	Lime	Y	0.18	S	6	2	C1	2.5	2.2	15.2	20-40	Reasonable	Poor form. Historically damaged at 1.2 metres.	Could be retained.
9990	Lime	Y	0.15	S	6	2	C1	2.5	1.8	10.2	40+	Good	Minor ivy to main stem.	Could be retained.
Group A	Various	M/A	0.2	S	4	2	B2	1.5	2.4	18.1	40+	Reasonable	Species include Bullace, Hawthorn, Elder and Maple.	Variable condition.
9991	Bullace	M	0.4	M	9	1	B1	3	4	50.3	20-40	Reasonable	Historically pruned. Early decay at old pruning points in stub.	Could be retained.
9992	Field Maple	M/A	0.36	M	10	2	B1	4.5	3.6	40.7	40+	Good	Minor ivy to main stem and scaffolds.	Could be retained.
9993	Larch	Y	0.21	S	10	2	B1	2.5	2.5	19.6	20-40	Good	High, asymmetric crown. No visible defects seen.	Could be retained.
9994	Silver Birch	M/A	0.38	S	12	1.5	A1	3.5	4.6	66.5	20-40	Good	No visible defects seen.	Could be retained.
9995	Mountain Ash	M/A	0.21	S	9	1	B1	3	2.5	19.6	20-40	Reasonable	Not perfect form.	Could be retained.
9996	Crab Apple	M	0.32	S	8	0	B1	2.5	3.8	45.4	20-40	Reasonable	No visible defects seen.	Could be retained.
Group B	Various	M/A	0.3	M	6	0	B2	2.5	3	28.3	40+	Reasonable	Species include Ash, Field Maple, Elder, Hawthorn and various shrubs.	Could be retained.

Tag No. or ref.	Species	Age Class	Ø m/s @1.5	Stems	Height	Lower crown height	Grade	Crown Spread (max)	RPA radius	RPA (m^2)	Remaining Contribution	Condition	Comments	Recommendations
Group C	Various	M/A	0.4	M	10	0	B2	3	4	50.3	40+	Reasonable	Species include Bullace, Ash and various shrubs. Good screen.	Could be retained.
9997	Weeping Willow	M	0.6	S	14	1.5	C1	0	7.2	162.9	20-40	Reasonable	Very asymmetric crown due to Group D.	Could be retained.
Group D	Lombardy, Horse Chestnut and Poplar	M	0.5	S	22	1	B2	2	6	113.1	10-20	Reasonable	Trees on neighbouring property. Variable condition. Note drainage ditch between trees and site.	No work required.
Group E	Various	M	0.5	M	6	0	B2	3.5	5	78.5	40+	Reasonable	Species include Hawthorn, Bullace and Ash. Cut away to northern side for car park.	Could be retained.
9998	Ash	M	1.2	M	18	10	C2	5	12	452.4	10-20	Poor	Low vigour. Historical low quality treework. Scattered minor deadwood throughout crown. Minor ivy to main stem. Historical "stub".	Remove deadwood. Consider veteran tree management.
9999	Ash	M	1	M	16	10	C2	0	10	314.2	10-20	Poor	Historical "stub" management. Moderate decay at base of main stem. Moderate ivy to main stem and scaffolds. Low vigour.	Consider veteran tree management.

Tag No. or ref.	Species	Age Class	Ø m/s @1.5	Stems	Height	Lower crown height	Grade	Crown Spread (max)	RPA radius	RPA (m^2)	Remaining Contribution	Condition	Comments	Recommendations
10000	Ash	M	1.4	M	16	6	C2	3	14	615.8	10-20	Reasonable	Historical "stub" management. Moderate ivy to main stem. Decay in base of main stems.	Consider veteran tree management.
0001	Ash	M	1.2	M	16	6	C2	3	12	452.4	10-20	Reasonable	Historical "stub" management. Moderate ivy to main stem. Decay in base of main stems.	Consider veteran tree management.
0002	Ash	M	1.2	M	14	6	C2	0	12	452.4	10-20	Poor	Recent stem shed. Historical stub. Moderate ivy to main stems.	Consider veteran tree management.
0003	Ash	M	1.4	M	17	7	B2	4	14	615.8	20-40	Reasonable	Historical stub management. Moderate ivy to 2 stems.	Could be retained.
0004	Ash	M	0.7	M	16	7	B2	3	7	153.9	20-40	Reasonable	Historical stub management. Moderate ivy to main stem.	Consider veteran tree management.
0005	Ash	M/A	0.35	S	12	5	B1	4.5	4.2	55.4	40+	Good	No visible defects seen.	No work required.
Group F	Various	M/Y	0.4	S	8	0	B3	3	4.8	72.4	40+	Reasonable	Dilapidated orchard containing mainly Apples in poor condition but with Plum, Hawthorn and numerous young Ash in good condition.	Maintain as woodland.
0006	Sycamore	Y	0.28	M	10	2	C1	2.5	2.8	24.6	40+	Reasonable	Not of good form.	Could be retained.

Tag No. or ref.	Species	Age Class	Ø m/s @1.5	Stems	Height	Lower crown height	Grade	Crown Spread (max)	RPA radius	RPA (m^2)	Remaining Contribution	Condition	Comments	Recommendations
0007	Ash	Y	0.35	M	9	2	C1	3	3.5	38.5	40+	Reasonable	Twin stemmed tree, not of good form.	Fell and replace.
0008	Maple	Y	0.24	M	5	1.5	C1	2	2.4	18.1	20-40	Poor	Poor form.	Fell and replace.
0009	Apple	M/A	0.22	M	4	0	C1	2.5	2.2	15.2	40+	Reasonable	Minor historical pruning only.	Could be retained.
0010	White Willow	M	1.2	M	12	1	B1	6	12	452.4	20-40	Good	No visible defects seen.	Could be retained.
Group G	Hornbeam and Viburnum	Y	0.3	S	7	0	B1	3.5	3.6	40.7	40+	Good	Hornbeam with plants under. No visible defects seen.	Could be retained.
0011	White Willow	M	0.85	M	7	0	B1	6	8.5	227	20-40	Good	Minor ivy to main stems.	No visible defects seen.
Group H	Alder	Y	0.3	S	8	0	B2	3	3.6	40.7	40+	Good	No visible defects seen.	Could be retained.
Group J	Alder	M	0.5	M	12	2	B2	4	5	78.5	40+	Reasonable	Linear group of trees of mainly good form. Historically cut at 1.5 metres with some decaying wounds in main stem structure.	Could be retained.
Group K	Various	M/A	0.35	S	15	0	B2	4.5	4.2	55.4	40+	Reasonable	Maturing plantation containing Alder, Leyland Cypress, Ash, Field Maple, Silver Birch and Cherry. Under-managed with several dead trees.	Remove dead and suppressed trees.

Tag No. or ref.	Species	Age Class	Ø m/s @1.5	Stems	Height	Lower crown height	Grade	Crown Spread (max)	RPA radius	RPA (m^2)	Remaining Contribution	Condition	Comments	Recommendations
Group L	White Willow	M	1	M	20	1	C2	7	10	314.2	10-20	Reasonable/Poor	Extensive grazing damage to lower main stem. One dead tree. Scattered minor deadwood throughout crowns of live trees.	Remove dead tree. Consider pollard management.
Group M	Various	Y	0.3	M	8	0	B2	2	3	28.3	40+	Good	Young plantation containing Ash, Hazel, Elder, Lilac, Sycamore, Alder, Mountain Ash, Gout Willow and Norway Maple. No visible defects seen.	No work required. Could be retained.
Group N	Elder x 3	M	0.4	M	6	1.5	B3	4	4	50.3	10-20	Reasonable	Fully mature plants with extensive historical management. One dead Mountain Ash in group.	Remove Mountain Ash.
Group P	Alder	Y	0.25	S	8	0	B2	3	3	28.3	40+	Good	Stand of young trees. No visible defects seen.	No work required.
Group Q	Alder	M/A	0.4	S	12	2	B2	5	4.8	72.4	40+	Good	Linear group of variable form.	No work required.
0012	Eucalyptus	Y	0.5	M	12	1.5	C1	4	5	78.5	40+	Reasonable	Twin-stemmed asymmetric tree.	Could be retained.
0013	Eucalyptus	Y	0.5	M	10	1	U	3.5	5	78.5	10-20	Poor	Weak main stem unions at 0.6 metres and 1.2 metres.	Fell and replace.
0014	Crab Apple	M/A	0.3	M	7	2	B1	2	3	28.3	40+	Reasonable	Poor form.	Could be retained.

Tag No. or ref.	Species	Age Class	Ø m/s @1.5	Stems	Height	Lower crown height	Grade	Crown Spread (max)	RPA radius	RPA (m^2)	Remaining Contribution	Condition	Comments	Recommendations
0015	Cherry	M/A	0.28	S	10	2	C1	4	3.4	36.3	10-20	Poor	Poor form and weak main stem union at 2 metres.	Fell and replace.
0016	Bullace	M/A	0.4	M	8	2	C1	4	4	50.3	20-40	Reasonable	Multi-stemmed for. Low quality tree.	Could be retained.
0017	Silver Birch	M/A	0.26	S	10	2	B1	3.5	3.1	30.2	20-40	Good	Not perfect form. No visible defects seen.	Could be retained.
0018	Crab Apple	M/A	0.3	M	6	1.5	C1	5	3	28.3	40+	Reasonable	Poor form.	Could be retained.
Group R	Alder	M/A	0.35	S	12	0	B2	3	4.2	55.4	40+	Good	Trees of variable form forming linear group.	No work required.
0019	Alder	M/A	0.32	S	9	1.5	C2	1.5	3.8	45.4	40+	Reasonable	Suppressed.	Could be retained.
0020	Cherry	M/A	0.5	M	12	2	U	4	5	78.5	10-20	Poor	Infected with Honey fungus.	Remove.
Group S	Eucalyptus	Y	0.32	S	14	2	B2	4	3.8	45.4	40+	Good	Three trees of variable form.	Could be retained.
Group T	Alder	M/A	0.4	M	14	2	B2	5	4	50.3	40+	Good	Broadly linear group. No visible defects seen.	No work required.
Group U	Various	M/A	0.35	M	9	0	C2	2	3.5	38.5	40+	Reasonable	Species include Hawthorn, Bullace and shrubs.	No work required.
0021	Scots Pine	Y	0.26	S	11	3	C1	2.5	3.1	30.2	40+	Reasonable	Misshapen tree.	Could be retained.

Tag No. or ref.	Species	Age Class	Ø m/s @1.5	Stems	Height	Lower crown height	Grade	Crown Spread (max)	RPA radius	RPA (m^2)	Remaining Contribution	Condition	Comments	Recommendations
0022	Silver Birch	M/A	0.3	S	14	3	B1	3	3.6	40.7	20-40	Good	No visible defects seen.	Could be retained.
0023	Maple	M/A	0.3	M	12	2	C1	2.5	3	28.3	20-40	Reasonable	Poor form.	Could be retained.
0024	Leyland Cypress	M/A	0.4	M	14	2	C1	2	4	50.3	40+	Reasonable	Damaged at base of main stem.	Could be retained.
0025	Lime	M/A	0.35	S	12	1	C1	4.5	4.2	55.4	20-40	Poor	Multiple weak unions in main stem structure.	Remove.
NT1	Horse Chestnut	M	0.5	S	12	3	B1	4	6	113.1	20-40	Reasonable	Moderate ivy to main stem prevents close inspection.	Remove ivy and re-inspect

.

Appendix
B

Plans and Charts

Page ii Tree Constraints with Layout 2003.AIA (A0 Colour)

Page iii Tree Protection Plan 2003.TPP (A0 Colour)

Page iv Figure 2 BS5837: 2012

Page v Figure 3 BS5837: 2012

Page vi Notice for Protective Fencing

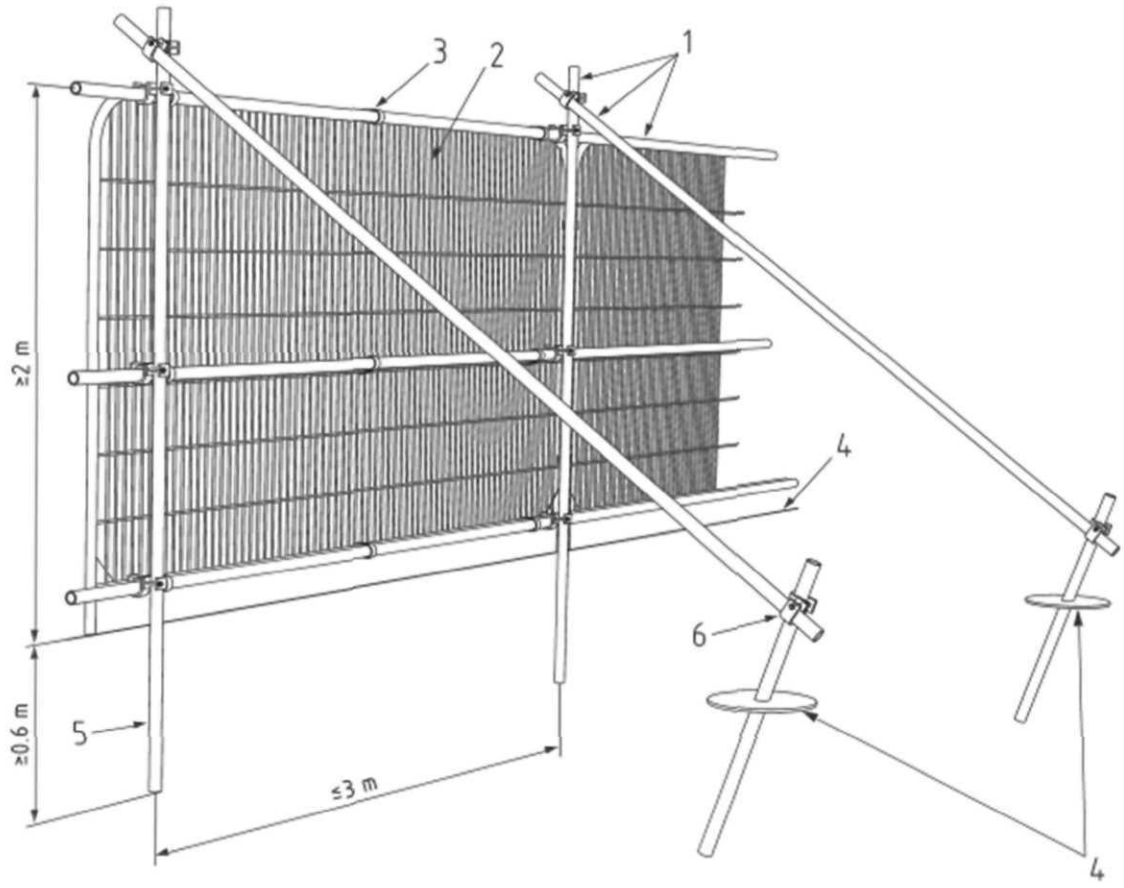
KEY

Green tree centre	Grade 'A' tree
Blue tree centre	Grade 'B' tree
Grey tree centre	Grade 'C' tree
Red tree centre	Grade 'U' tree (tree for removal)

Magenta line shows RPA

Grey Hatched zone shows shadow footprint.

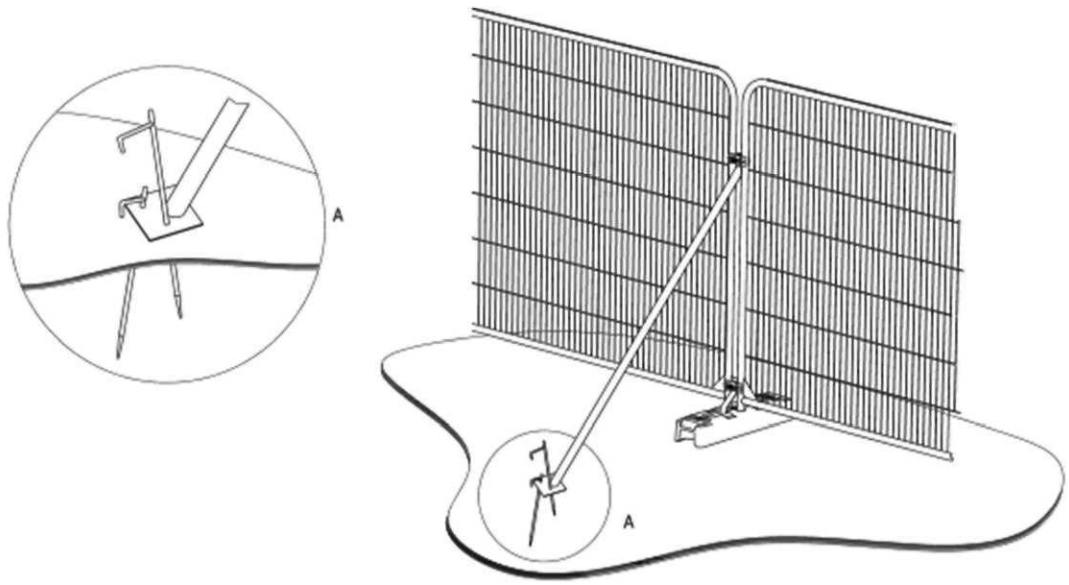
Figure 2 **Default specification for protective barrier**



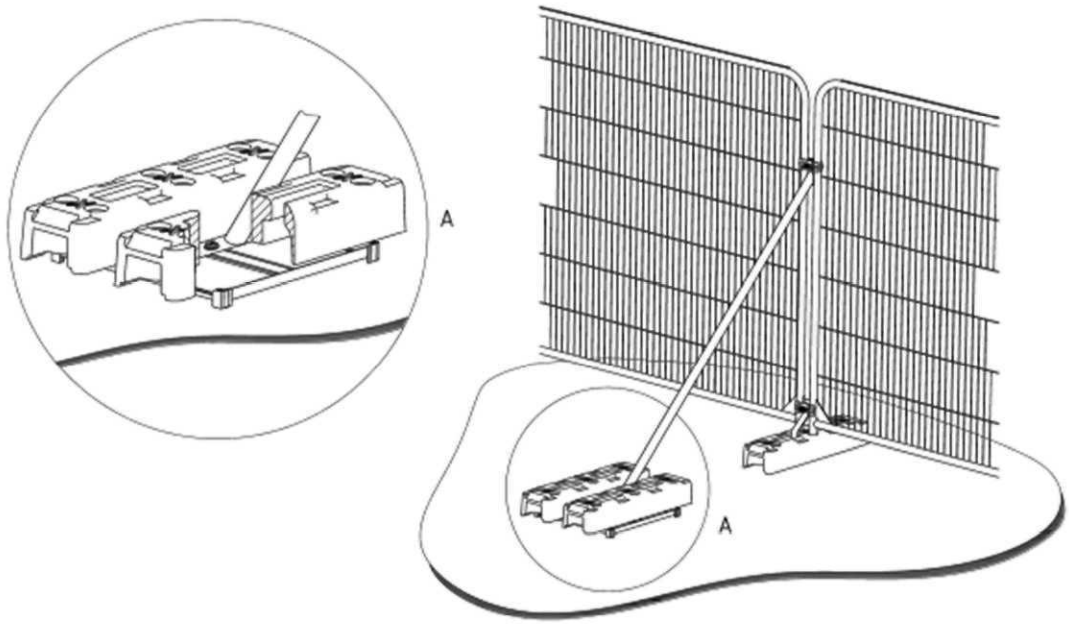
Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Figure 3 **Examples of above-ground stabilizing systems**



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

PROTECTED AREA

DO NOT ENTER

(WITHOUT PERMISSION)

This fencing is designed to protect these trees.

PLEASE REPORT ANY BREACH IN THE FENCE TO THE SITE MANAGER

Appendix
C

Reference Material

Tree Preservation Orders: A Guide to the Law and Good Practice (DETR 2000) (As amended October 2008)

The Town and Country Planning (Tree Preservation) (England) Regulations 2012

BS5837 'Trees in Relation to Construction' 2012

NHBC Chapter 4.2 'Building near Trees' 2011

NJUG Volume 4 Issue 2 (National Joint Utilities Group) 2007

Tree Roots and Buildings (Cutler and Richardson) 1997

Fungal Strategies of Wood Decay in Trees (FMWR Schwarze; J Engels; C Mattheck)

Arboricultural Advisory and Information Service APN 5 'Shaded by Trees? 1999

Arboricultural Advisory and Information Service 'Tree Roots and Foundations' 1998

Arboricultural Advisory and Information Service 'Tree Root Systems' 1995

Arboricultural Advisory and Information Service Research Note 'Forces Exerted by Tree Roots' 1996

Principals of Tree Hazard Assessment and Management (D Lonsdale) 1999

The Health and Safety at Work Act 1974

BS3998 'Recommendations for Treework' 2010

Diagnosis of Ill Health in Trees (Strouts and Winter) 1994

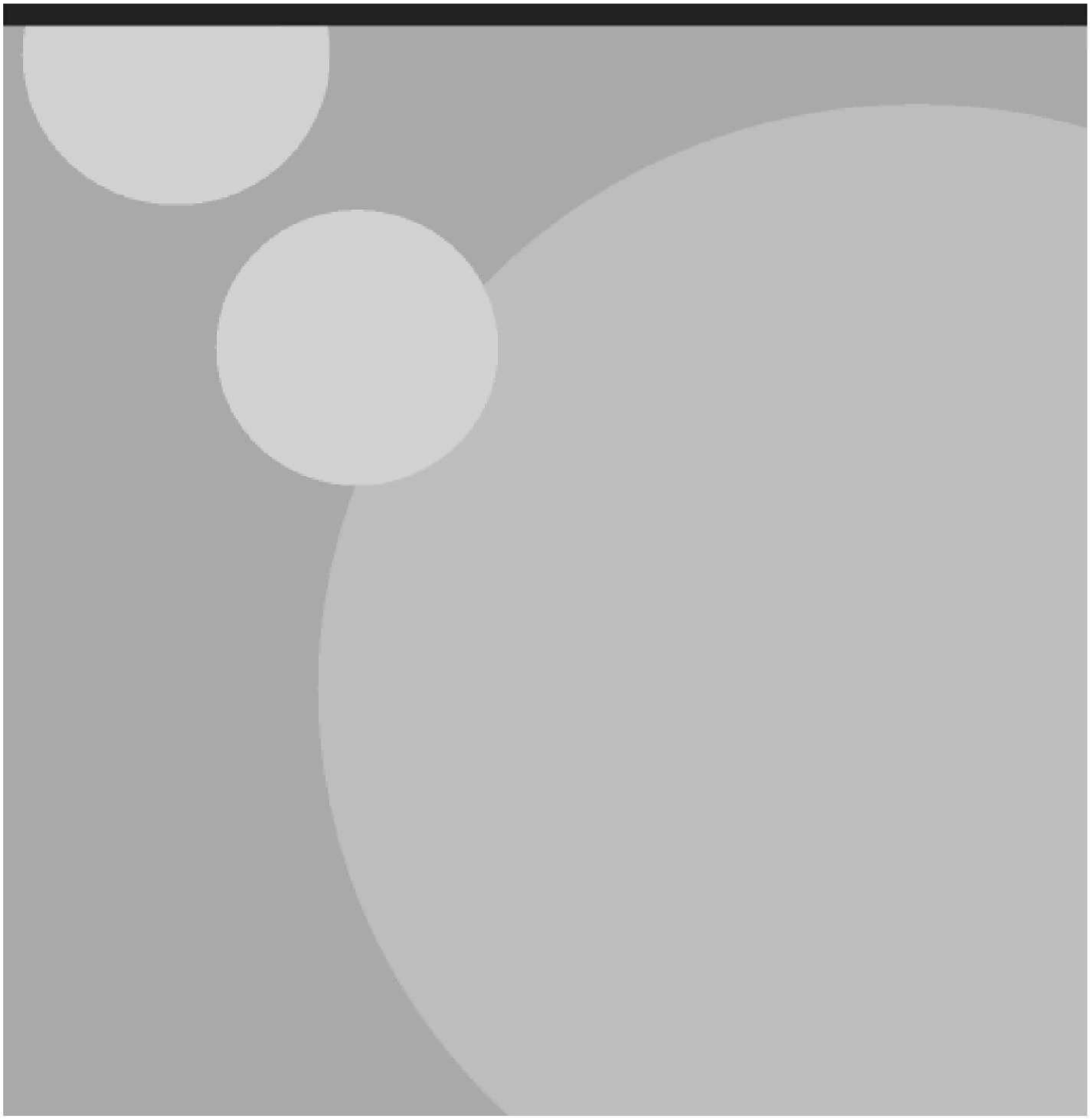
The Law of Trees, Forests and Hedgerows. (C Mynors) 2003

Veteran Trees: A guide to Good Management (English Nature) 2000

Communities and Local Government

Protected trees

A guide to tree preservation procedures





Protected trees

A guide to tree preservation procedures

April 2012
Department for Communities and Local Government

© *Crown copyright, 2012*

Copyright in the typographical arrangement rests with the Crown.

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit http://www.nationalarchives.gov.uk/doc/open-government-licence/ or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk.

This document/publication is also available on our website at www.communities.gov.uk

Any enquiries regarding this document/publication should be sent to us at:

Department for Communities and Local Government
Eland House
Bressenden Place
London
SW1E 5DU
Telephone: 030 3444 0000

April, 2012

ISBN: 978-1-4098-3443-4

Protected trees:
A guide to tree preservation procedures

Introduction

This leaflet is written for tree owners, their neighbours and local community groups, and answers some of the most common questions about tree preservation procedures in England. It is for information only and you should consult a solicitor if you are unsure of your legal rights or obligations.

Please note that new tree preservation legislation came into force on 6 April 2012 which affects all existing and new tree preservation orders. This leaflet updates the leaflet published in 2010, which is now cancelled.

Questions and answers

1. What is a tree preservation order?

It is a written order made by a local planning authority (e.g. a borough, district or unitary council or a national park authority) which, in general, makes it an offence to cut down, top, lop, uproot, wilfully damage or wilfully destroy a tree protected by that order without the authority's permission.

2. What is the purpose of a tree preservation order?

To protect trees which bring significant amenity benefit to the local area. This protection is particularly important where trees are under threat.

3. What type and species of trees can a tree preservation order protect?

All types, but not hedges, bushes or shrubs. An order can protect anything from a single tree to all trees within a defined area or woodland. Any species can be protected, but no species is automatically protected by a tree preservation order.

4. How can I find out if a tree is protected by a tree preservation order?

Contact the local planning authority. Details of tree preservation orders will be available for inspection at its offices.

An official search of the local land charges register can also be made before you buy a property. This should reveal the existence of an order and whether a property is in a conservation area (see question 18). Make sure your legal adviser tells you if any trees are protected.

5. If I see work being carried out on a protected tree, how can I find out if the owner has permission?

Check with the local planning authority, which will have a register of applications and decisions that you can look at.

6. There are trees which I think should be protected by a tree preservation order. What can I do?

Contact the local planning authority, giving details of the trees and the reasons why you think the trees should be protected.

7. When does a tree preservation order come into effect?

Provisional protection comes into effect as soon as the local planning authority makes the order. The authority will then need to confirm the order to provide long-term protection.

8. How will I know when a local planning authority makes a tree preservation order?

The authority will write to those who may have a right to work on the tree, generally the tree owner and sometimes others, such as tenants and neighbours. Copies of new orders are also available for inspection at the planning authority's offices.

9. How can I object to or express support for a new tree preservation order?

Write to the local planning authority within the period it allows for comment (usually 28 days), identifying the tree or trees in question and giving your reasons.

The authority will take your comments into account when deciding whether or not to confirm the order. The authority can also modify an order when it confirms it, for example to exclude some of the trees.

10. Does the local planning authority become responsible for looking after protected trees?

No. Owners remain responsible for trees covered by tree preservation orders, their condition and any damage they may cause. But the authority's permission is usually required before any work is carried out to the trees (see questions 11-14).

The authority may be able to offer help and advice on how the trees should be managed.

11. What if I want to work on a tree covered by a tree preservation order?

Apart from special exceptions (see questions 13-15) you (or your agent) must seek permission from the local planning authority by submitting a standard application form to it. The form is available from the Planning Portal (www.planningportal.gov.uk) or the authority. It is important to clearly specify

the work you want done and provide information to support your case (such as professional advice on the health of the tree and, in cases of alleged subsidence, professional evidence on the soil, the structure affected and the tree).

Before making an application you may find it helpful to consult a tree surgeon or arboricultural consultant to help you clarify what you need to do. Information on selecting a tree expert can be found at www.tree-care.info/findanarb.

You may also find it helpful to refer to the local planning authority's website for information on tree protection in the local area.

12. Do I need a Forestry Commission felling licence to fell protected trees?

You do not need a licence to fell trees in gardens**.** However, for trees outside of gardens, you may need to apply to the Forestry Commission for a felling licence, whether or not they are covered by a tree preservation order.

You can find out more about felling licences from the Forestry Commission (see *Further information* at the end of this leaflet).

13. Do I always need the local planning authority's permission to work on a tree covered by a tree preservation order?

Yes, except for:

1) cutting down trees in accordance with one of the Forestry Commission's grant schemes, or where the Commission has granted a felling licence (see question 12);

2) cutting down or pruning a tree:

    - which presents an urgent and serious safety risk – however you must give written notice (by letter or email) of the proposed work to the local planning authority as soon as practicable after the work becomes necessary;
    - which is dead – however you must give at least five working days written notice (by letter or email) of the proposed work to the local planning authority;
    - which is directly in the way of development that is about to start for which detailed planning permission has been granted (see questions 20 and 21);
    - in a commercial orchard, or pruning fruit trees in accordance with good horticultural practice;
    - to prevent or control a legal nuisance (you may find it helpful to check first with a solicitor);
    - in line with an obligation under an Act of Parliament;

- by or at the request of certain organisations listed in the regulations (see Further information at the end of this leaflet).

3) removing dead branches from a living tree

If you are in any doubt about what needs permission, check with the local planning authority (see question 14).

14. What happens if I carry out work on a protected tree without permission?

If you deliberately destroy a protected tree, or damage it in a manner likely to destroy it, **you could be liable to an unlimited fine**. You could also be fined if you cause or permit such work. Other offences can lead to fines of up to £2,500.

15. When will I have to plant a replacement tree?

You will have to replant:

1) if you cut down or destroy a protected tree:

   - in breach of a tree preservation order, or
   - because the tree is dead or dangerous;

2) if the local planning authority gives you permission to cut down a protected tree but makes replanting a condition of its consent;

3) in most cases where the Forestry Commission grants a felling licence.

Local planning authorities have legal powers to ensure that you plant a replacement tree when required.

16. What if my application to carry out work under a tree preservation order is refused, or I object to the conditions imposed by the local planning authority?

You can appeal to the Secretary of State for Communities and Local Government in writing within 28 days of receiving the local planning authority's decision. The authority will give you the address. The Secretary of State may allow or dismiss the appeal, or vary the original decision.

Further information about tree preservation and tree replacement appeals is on the Planning Portal (www.planningportal.gov.uk).

17. Can I get compensation if my application to carry out work under a tree preservation order is refused or conditions are imposed?

In certain circumstances which are set out in the legislation (see Further information) you can seek compensation from the local planning authority for loss or damage which results from the authority refusing consent or granting consent with conditions. However, the legislation sets limitations and strict criteria that must be met. See question 11 regarding the need for adequate information to support your case.

Claims should be sent to the local planning authority within 12 months of its decision, or within 12 months of the Secretary of State's decision if you appealed.

18. How are trees protected in a conservation area?

Normal tree preservation order procedures apply if a tree in a conservation area is already protected by a tree preservation order. But if a tree in a conservation area is not covered by an order, you have to give written notice (by letter or email) of proposed work to the local planning authority, describing what you want to do, at least six weeks before the work starts. This gives the authority an opportunity to consider protecting the tree with a tree preservation order.

You do not need to give notice of work on a tree in a conservation area less than 7.5 centimetres in diameter, measured 1.5 metres above the ground (or 10 centimetres if thinning to help the growth of other trees).

The answer to question 14 also applies to trees in conservation areas, so if you are not sure about what you should do, check with the local planning authority.

19. How are trees on development sites affected?

They can be protected by a tree preservation order or by a condition attached to a planning permission, or both. A planning condition may also require trees to be planted, which may then be protected by a tree preservation order.

20. Can I stop planning permission being granted – or prevent approved development being carried out – by getting a tree preservation order imposed on trees on the site?

No. A tree preservation order does not prevent planning permission being granted. But a local planning authority will consider the risk to protected trees when deciding planning applications.

Once detailed planning permission is granted, felling that is directly required to enable the development to go ahead may be carried out.

21. Can I carry out work on protected trees which are in the way of proposed development?

You can only cut down or cut back protected trees if they are directly in the way of development which is about to start and for which detailed planning permission has been granted.

If you have outline planning permission or if the development does not require planning permission (a small home extension, for example) you must still apply to the local planning authority for permission under the tree preservation order in the normal way.

If you are in any doubt about what is required, check with the local planning authority (see question 14).

22. What happens to tree preservation orders made before 6 April 2012 under old procedures?

On 6 April 2012 the Town and Country Planning (Tree Preservation)(England) Regulations 2012 introduced a single set of procedures for all trees covered by tree preservation orders. Consequently:

- orders made before 6 April 2012 continue to protect the trees they cover and answers to earlier questions apply;
- the legal provisions listed in orders made before 6 April 2012 have been automatically cancelled and replaced by the provisions in the new regulations. Only the information necessary to give these orders legal effect and identify the trees they protect is retained;
- there is no need for existing orders to be remade, amended or reissued.

Further information

You can find out more about felling licences in the Forestry Commission's booklet *Tree Felling – getting permission* (www.forestry.gov.uk or telephone 0161 495 4845).

You can find out more about tree preservation orders in the Town and Country Planning (Tree Preservation) (England) Regulations 2012, which are available through www.legislation.gov.uk or TSO (telephone 0870 600 5522) and some public libraries.

You can also find more information about the tree preservation order and planning systems on the Planning Portal (www.planningportal.gov.uk).

You may also find it helpful to refer to the local planning authority's website for information on tree protection in the local area.

There is guidance on selecting a tree expert at www.tree-care.info/findanarb.