



CONSERVING OUR TREE HERITAGE
IN ASSOCIATION WITH THE BILLERICAY TOWN COUNCIL
The Billericay Tree Wardens' Guide



A giant oak in a private garden off Perry Street

**A COMPILATION OF TREE-RELATED REFERENCE DATA, FACTS
& VIEWS BY THE BILLERICAY TREE WARDEN (BTW) GROUP**
April 2024

"This oak tree and me, we are made of the same stuff". Carl Sagan

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THE BILLERICAY

TREE WARDENS' GUIDE



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INTRODUCTION

The idea of forming a **Billericay Tree Warden (BTW)** group was proposed at a **Basildon Wildlife & Countryside Forum** meeting back in 2013. The various threats to trees in the town were set to increase due to the launching of the government's **Core Strategy & its Local Plans**. So it was felt that a Tree Warden group was warranted to highlight the threat to our town's Tree Heritage. Thus representations were made to the **Billericay Town Council (BTC)** in 2017 that such a Group should be formed. Later that year, meetings at the BTC between the Council's Chairperson, his Councillor colleagues and those willing to become Tree Warden members outlined the way forward

Following successful talks, the BTC made available their meeting room at the then Crown Yard (but now at the Chantry Centre, Chantry Way) for the group's committee meetings, providing yellow Hi-Viz jackets and providing the Group with Indemnity & Accident Insurance cover, including for their volunteers, whilst on Tree Warden duties

The **Essex County Council (ECC)** and the **Basildon Borough Council (BBC)** look after our trees proficiently with regulations set in place and acted upon to safeguard them. Successfully looking after trees is not so much a science but a combination of the professionals' hard earned experience, concern for their welfare and using the law. However, the BTW (a voluntary group) is aware that there are a few "*grey areas*" and questionable situations with respect Planning Applications that in our view need to be addressed

As already mentioned, the **Local Plan** with its proposed large scale new build residential developments set to be built in and around our town, that presumably will eventually get the go-ahead in some form, are more than likely to significantly impact our tree stock. That is allowing for the fact that the BBC and the Developer will need to agree which trees should stay and which can be felled. And to that end the Developer, at his expense, will be required to provide an independent tree survey and submit the results with his Planning Application for Planning Approval

Planting a significant number of landscaping trees on new build development is a boon but it will take them many years to reach maturity and to perform the natural services of absorbing air pollution and emitting oxygen in significant quantities (and thus sequestering carbon to combat the **Climate Crisis**) that a mature trees already achieve. The message is - **Protecting mature trees is as important as planting new ones**

The BTW is not against development per se but are concerned where they pose an unnecessary threat to trees. The objections to development with reference to building on **Green Belt** and providing adequate **infrastructure** (roads and public facilities) are outside of our remit

The mature tree stock across Billericay in its gardens, parks, woodlands, green verges, open spaces and Nature Reserves act as a **Green Lung** fending off respiratory diseases and brings wildlife into the urban landscape

The Role of the Billericay Tree Wardens

Over time it has become evident what we can meaningfully achieve

A] The BTW, and those within the town who are concerned about our local Tree Heritage, are as the "**Eyes & Ears**" of our local tree stock

B] **To Raise Awareness** throughout the town to the importance of our trees and to our Tree Heritage. The town's tree stock is as a **Green Lung** combating the **Climate Crisis** whilst reducing respiratory problems and bringing wildlife into the urban landscape

C] Keeping alive the awareness that a revised **Local Plan** will be a threat to our existing trees both in and around the town

D] To apply for a Tree Protection Order (TPO) on trees that are identified as under a “*perceived threat*”

E] Tree Planting Projects:- At times, the BTW works closely with the **Essex County Council** (ECC) and the **Basildon Borough Council** (BBC) on their large scale tree planting projects local to our area to specifically combat the **Climate Crisis**. The BTW also carries out its own tree planting projects following the acknowledged advice to plant the **Right Tree in the Right Place for the Right Reason**

F] To continue pursuing the various School projects so to encourage a natural history mindset in the young. To give talks to schools and other gatherings as to the benefits of trees and wildlife. Continue to collaborate with our local library to mount tree-related displays when the opportunity arises

G] Advising members of the public on the tree issues that they encounter

H] To carry out **Planning Application** (PA) checks and submit a **Comment** on the PA when we consider that trees are being unnecessarily targeted in development projects – Some gap-site Developers are quick to clear-fell the trees on their development site even prior to submitting a PA. A For Sale sign outside a property can signal a potential tree loss

I] Continue a working relationship with our local natural history societies and groups and to maintain a positive dialogue with the professionals

J] **Social Media – Billericay Trees** - We use this outlet to promote meaningful tree issues, facts and news and as a means of communication with our residents <https://tinyurl.com/k8bzd772> <https://tinyurl.com/3hxdy5m9>

K] Continue producing our **BTW News-sheet** six times a year for our members that also goes out to approximately 90 people who are Councillors and professional people in the town who have influence. This forms part of our **PR Raising Awareness** remit. The BTW bi-monthly News-sheets are also lodged on the Billericay Town Council's website under the heading “The Town”:- <https://www.billericaytowncouncil.gov.uk/>

Email Contact Addresses

Our contact email address is:- billericaytreewardens@gmail.com

Or contact the Town Clerk at:- townclerk@billericaytowncouncil.gov.uk

We maintain a dialogue with the Billericay Action Group (BAG) on tree related issues:-

<http://billericayactiongroup.org.uk>

We would like to take this opportunity to thank the Town Council for providing the BTW with Indemnity and Accident Insurance for our members, including our volunteers, whilst out in the field including access to the facilities at the Chantry Centre along with our yellow Hi-Viz jackets

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1] **Gurus of the Tree World**

The late **Dr Oliver Rackham** (1939 – 2015) a botanist who combined his encyclopaedic knowledge of British woodlands, nature conservation and archaeology with original thought. He wrote several books on woodlands, the landscape, the countryside and its history. One of which is the celebrated **Trees & Woodland in the British Landscape**. Oliver was one of the pioneers to promote the continuance of woodland practises like coppicing to enhance the woodland flora and other wildlife to flourish. In essence, the **Woodland Trust** has followed his lead.

The late **Alan F. Mitchell** (1922 - 1995), forester, dendrologist and botanist and was the author of many tree-related books. His **Trees of Britain & Northern Europe**, an aid to tree identification, published in 1974 has

been updated and retitled since by Owen Johnson & David More but it retains the essence of Alan Mitchell's vision. Alan was the founder of the Tree Register.

2] The Local Plan – 2013 to 2034 Inclusive

This is the biggest threat to our trees in the Billericay area. We are mindful that excess felling could occur. *With respect the proposed New Build developments, the Billericay Tree Wardens (BTW) are recommending that as many mature existing trees are retained as is practical and worked into the Architect's site layout(s).* To further the possibility of tree retention, a Local Authority presents a "condition of planning" whereby a Developer will be obliged to adhere to if he is to gain Planning Permission. As we understand it, a Developer will be required to undertake an independent tree survey and submit it with his PA. Also, there is the British Code of Practice BS5837 that recommends in great detail as how existing trees on a development site should be retained and protected

The retention of existing trees was an approach followed in principle when the Queen's Park estate was built. Thus a precedent has been set in our local area. For a disastrous scenario could occur if a development site were to be clear-felled of trees prior to a PA being submitted; and then could give grounds for the PA to be automatically Refused – But by then our trees would be gone

As of March 2022, the latest iteration of the **Local Plan** (LP) had been withdrawn and is to be revised and after public consultation will be presented to the Secretary of State probably in 2026. Only then will we know the number of New Build residential houses opted for and the land that has been allotted for them

The outgoing **Local Plan** had c.2775 new build residential houses proposed to be built in and around our town on nine main development sites. c.1700 of those were destined to be built in the SW Billericay area

The history of the **Local Plan** and the up-to-date situation has been fully analysed by the **Billericay Action Group** (BAG) on their website:- www.billericayactiongroup.org.uk This is in tandem with the Billericay District Residents' Association (BDRA) at www.bdra.org The BTW's focus has been how the nine main proposed development sites will affect the existing trees

The BTW only Comments on Local Plan proposed new build residential development issues where they affect trees. The contentious subject of the encroachment on Green Belt and additional infrastructure requirements are outside of our remit

3] Nature Conservation – Biodiversity Net Gain (BNG) – The Government's Environment Act 2021 **The Developer's responsibility and the process to achieve Compliance Relevant to the Local Plan and other developments**

"From late 2023 onwards, it will be a legal obligation (mandatory) for Developers to consider the environmental impact of their development and ensure the biodiversity is left in a better state than before. It will soon become law for Developers to demonstrate the steps that have been taken to preserve, protect, mitigate, or enhance any habitats found on site. This may include an increase in natural habitats and ecological features over time, which goes above the habitat originally on site"

The new **British Standard**, named [BS 8683: Process for designing and implementing biodiversity net gain – Specification](#), builds on and adds to the [UK's Good Practice Principles of BNG](#) and [guide for development](#) produced by CIEEM, CIRIA and IEMA, providing a structured process for designing and implementing **BNG** based on good practice (Chartered Institute of Ecology & Environmental Management / Construction Industry Research & Information Association / Institute of Environmental Management & Assessment)

Planning Applications will need to thoroughly address the issue and demonstrate that a minimum of 10% **BNG** will result and be maintained for c.30 years.

The ecology company's website **Ecology by Design** explains how in law **BNG** will operate from November 2023 onwards. Thus the Compliance issue is not the sole responsibility of the Local Authority although they will be part of the process involving several other "stakeholders". The **Biodiversity Metric** is explained:- <https://www.ecologybydesign.co.uk/ecology-resources/biodiversity-net-gain>

The ecology companies involved will need to be fully **Accredited**

Where a development's footprint does not allow room for sufficient BNG then mitigation and offsetting will be required

4] A Case for More Amenity Trees in our Towns

As a truism, it has been long realized that human health is inextricably linked with the health of the environment. But only in recent times has it evolved into the science of ecosystem services. That is, how Nature benefits the human condition (both physical and mental health) and the monetary value that can be ascribed to it. It's a clinical approach but does demonstrate the need for sustainability and biodiversity other than for its intrinsic value. This article focuses on one aspect, namely trees. Quantifying the monetary value of our local trees is the job for the accountant with an ecologist's eye. What he or she will need to know is what to include in the audit. It's a holistic approach. Listed below are some of the benefits of our street amenity and parkland trees:-

Human Health is Well Served:-

A] The prime advantage of amenity trees (both coniferous and deciduous) planted in quantity is their ability to produce oxygen and absorb air pollutants and thus improve air quality. The greenhouse gas CO₂ is the villain, with sulphur dioxide another pollutant, both caused mainly by industrial processes and coal-fired power plants, which can be absorbed by a tree's leaves and bark. Pollen and dust are also extracted. Particulate pollution emitted by car exhausts is also filtered out by the trees. This is even more relevant in the light of the diesel VW emissions issue of a few years back. Airborne pollution and respiratory problems have long been linked to industrial and vehicle emissions. The **World Health Organization** (WHO) reports that globally 4.2 million people die by ambient air pollution every year.

Additionally, recent research has shown that children's brains are being adversely affected by present high levels of airborne pollution. There's even evidence that degenerative brain disorders in the elderly are partially attributable to airborne pollution (Alzheimer's and airborne aluminium). Thus substantially reducing air pollution will save lives and lighten the financial burden on society caused by it

B] The mainly nightly **Urban Heat Island Effect** experienced in towns and cities is reduced by the presence of a sufficient quantity of trees that reduce the ambient air temperature that in turn lessens the chance of respiratory problems

C] It has been well documented that tree-lined streets and tree landscaped housing estates are less prone to criminal activity and residents tend to take more care and pride in their immediate environment. It inspires a built-in Neighbourhood Watch effect as it were. Perhaps the spirit of the countryside is also evoked. To the eye, the vegetation softens and complements the concrete and brick. The sight of a street cherry tree in blossom in spring is an uplifting experience

D] Trees, of the larger leaved species, help reduce the effect of flash flooding by retaining water in their canopy and slowly releasing it by evaporation. In summer, this cools the area in combination with the canopy providing welcomed shade. In a wider sense, trees help form clouds and reduce weather extremes. Tree-lined streets in leaf also have the effect of reducing wind speed

E] On sloping sites in particular, trees resist soil erosion. History cites a legion of landslip events due to deforestation of hillsides and steep ground. The roots of trees and vegetation on sloping ground help tie the topsoil in as a reinforced mat. Additionally tree roots improve water quality by filtering out the toxins

F] An almost unquantifiable element to this is the effect of adding character and ambience to an area. It is recognized that those who live in cities tend to be more disconnected from the natural world than those who dwell in the countryside. The natural world provides the means of our survival in all its aspects by way of soil enrichment, food production, clean water and oxygen, the basics and the backbone of nature's ecosystem services

G] Lines of trees can act as windbreaks and also buffer the effect of traffic noise. City parks, green open spaces and trees are the **Green Lungs** of conurbations

H] The more tree-lined streets we introduce the better the wildlife connectivity will be with the surrounding landscape. The countryside can then connect with human habitation

I] Trees provide shelter for wildlife. Insects on the foliage are gleaned by birds in the summer and berry producing trees provide life sustaining food for winter thrushes and Waxwings. Garden birds and other wildlife become more numerous with a backdrop of trees

J] One novel approach is the idea of planting a "*lineal arboretum*", whereby trees of different species, native and non-native, both deciduous and conifer, provide a glimpse of what Kew Gardens has to offer! There's a fine example of a "*lineal arboretum*" down a residential street in nearby Ingatstone

K] The Victorians had the selfless wisdom of planting trees for the enjoyment of future generations. We need that vision more than ever now to combat the **Climate Crisis**, its air pollution, and to improve biodiversity and the ambience of our surroundings

L] And also well documented is the fact that mature trees in a residential area have the effect of improving the price of property, thus putting a commercial value on aesthetics

M] Trees are not without their negative impact but form a list considerably less than the positive one above:-
The cost of maintenance / Leaf and fruit fall / Structural damage to property / Some tree species emit VOC pollution (Volatile Organic Compounds)

5] The Billericay Forest School Initiative (BFS) – Empowering the Young

Since 2017 there has been operating a series of responsible woodland “classes” held in local woods where the young folk have been introduced to the great outdoors. The purpose of which is to encourage the children to advance along the learning curve of self-awareness, gaining confidence in acquiring basic skills, relating to their fellow foresters (human relationships) and taking on board what can be the raw face of the natural world – Muddy puddles and all!

A barrier that needs to be confronted and learnt is the taking of appropriate risks that the facilitators involved carefully monitor. Learning by personal hands-on experience and example is a building block for self-confidence and self-esteem.

The **BFS** initiative is run by local lady Lauren Ramsay, a qualified Primary school teacher and her team of facilitators that with their acknowledged skills impart resilience, independence and creativity in the young.

It is no coincidence that Lauren is not only knowledgeable and passionate about trees but is also fiercely protective of them when they are unnecessarily threatened. They too are her charges....

The **BTW's** view is that introducing the young to the natural world about us is now even more essential as we move alarmingly ever closer into the grips of the **Climate Crisis**. Among the young of today will be tomorrow's ambassadors and technical advisers who will be needed to effect change and set a course for sustainable survival; not only for us humans but for all the other life forms that travel with us on Planet Home. To be brutally honest: to mitigate the damage caused by our present and past generations.

There are various teaching sessions on offer that are held in and around Billericay, including private woodland, **Norsey Wood** and **Mill Meadows**:- <https://www.billericayforestschool.co.uk/>

6] Tree Preservation Orders Explained (TPO)

We are informed that the Basildon Council probably only TPO two or three trees per month across the entire Borough of c.43 square miles. We are also informed that the process of assigning a TPO is enormously expensive involving legal investigations and Tree Officers time. Hence, only trees thought to be in imminent danger (described as a **perceived threat**) are considered for a TPO. There is a fine of £20,000 (and no upper limit!) for the felling of a TPO tree without Local Authority (LA) permission

Across the Borough, the online Basildon Council's **Tree Preservation Order Register** lists some 1100 trees that have a TPO designation applied to them since 2002. However, in its present form the online TPO Register is far from *user-friendly* and is in need of revision. To check if a tree has a TPO one would need to contact Basildon Council at planning@basildon.gov.uk by sending in a map of the tree's location / .house number, road name and postcode

Tree Preservation Order Notes

In immediate situations of a **perceived threat** to a tree a Local Authority has the facility to assign a Temporary TPO whilst investigating the circumstances. One does not need to inform the landowner that a TPO has been applied for on his land. TPOs can be applied for singularly, in Groups, or as a Woodland TPO Order. However, the landowner is in his right to contest the Order and then the decision will be left to Planning. In exceptional cases, TPOs can be rescinded by the LA if it is considered to be for the “*common good*”.

The process whereby a Council Tree Officer assesses if a tree warrants a TPO status is detailed and strict. It usually involves a combination of factors, if the tree is a characterful and mature and healthy specimen, visible from the road so it adds to the **Street Scene** and thus warrants to be protected for the “*common good*”. If it is under a **perceived threat** then that is a further incentive for its protection

Removing deadwood from a TPO tree does not normally require a Planning Application (PA) but should only be carried out by an Accredited Tree Surgeon who should out of good practice check with the LA

The Forestry Commission

For felling trees on farmland, private estates or in the open countryside, whether on Green Belt or not, should refer to the advice of the Forestry Commission (FC). The FC has the facility of issuing a felling licence when the reason for felling is bona fide.

<https://www.gov.uk/guidance/tree-felling-licence-when-you-need-to-apply>.

Trees in Private Gardens

Non-TPO trees in private gardens can be worked upon or felled without permission from the LA. However, a check with the FC should be made for woodland in a large private garden with regards tree work or felling. However, the felling of a veteran oak without valid reason is unethical and a loss to the local and the nation's tree heritage.

Trees in front gardens can attract a TPO designation as they provide a **Street Scene** amenity value. A request for such a TPO can be made by a member of the public and does not require permission from the owner of the tree. Trees on County Council land and LA land (roadside verges and street greens) are effectively protected as are trees on our village greens, parks and nature reserves

Tree work on a TPO on private land such as **Crown Reduction** or **Crown Lifting**, trimming, pollarding or in the worst case removing, will require permission from the LA via a **Planning Application**. Permission will also be required from the owner on whose land the tree resides. Work should then be carried out by an Accredited Tree Surgeon who will arrange for the necessary paperwork to be undertaken

A TPO tree whose branches extend over a neighbouring garden will need the written permission from the tree owner for an Accredited Tree Surgeon to carry out tree work and to enter his garden to carry out the work. A Planning Application will need to be submitted by the Tree Surgeon and Granted by the LA before work can commence

There is a **Conservation Area** in Billericay centred about the High Street. Trees within that zone are effectively protected and a six week notice is required by the BBC should tree work be required

TPO trees and retained trees on a building site will require temporary protection from site activity, heavy machinery and the stacking of building materials, causing root compression and trunk damage. The method of protection will be illustrated in the ecology report submitted with the Planning Application.

Development – A High Risk Scenario for Trees

TPOs are rarely assigned to trees on farmland as they are not seen to be the subject of a **perceived threat**. So it is possible that either the landowner or the Developer who subsequently has ownership of the land, could fell the trees before a Planning Application (PA) is submitted. However, as we understand it, a Developer is required to submit an independent tree survey with his PA and subsequently a discussion occurs between the LA and the Developer as to what trees can stay and what trees can be removed. This is also an area where the FC can pass judgement. For a development site to be clear-felled of trees prior to a PA being submitted could give grounds for the PA to be automatically **Refused**

7] A Typical Example of a Request for a TPO

To the BBC – Planning & Tree Department – Monday 17/10/ 2022

Dear Sirs:- May I request a TPO designation on a mature Monkey Puzzle Tree in the front garden at XX Norsey Road in Billericay. The tree is now seen to be under a **perceived threat** as there is a For Sale sign outside the property.



Proposed by the BTW of Billericay, Essex – Contact email and phone details provided. The property is Up for Sale and Planning Application 22/XXXX/FULL has been submitted. The existing and mature Monkey Puzzle tree does not appear on the PA's architectural plans. If the Architect's plans are carried out, the tree would be felled to make way for a garage. I have submitted a

Comment on the PA requesting that the tree remain and the proposed new garage be re-sited. In my opinion, the tree should be retained as it is a healthy specimen and is a valuable aspect of the road's **Street Scene** amenity. The tree is as a landmark in the road. Norsey Road has long been losing its characterful and mature trees and this would be another to join them. I am aware that non-TPO designated trees in private gardens do not have legal protection

I request please that this tree (T1) to be given an immediate temporary TPO with a view to designating it as a permanent TPO and the property owner and Developer informed quickly so to avoid its felling

Thank you. Yours sincerely etc.

This was an actual case – The tree was TPO designated and the tree still exists today.

[Please note that native, non-native and ornamental trees can be designated with a TPO]

8] Applying to the Basildon Borough Council (BBC) for Work on a TPO Tree

A] To access the forms required to apply for tree work on a TPO designated tree, or trees in a Conservation Area - Google "Works to trees subject to a Tree Preservation Order (TPO)". This brings up on the PC screen an Application form comprising of 4 sheets to be printed-off and completed as is appropriate. Please note that works on a non-TPO tree in a private garden by the owner of the site does not need Council permission.

B] It is advisable to seek the advice of an Accredited Tree Surgeon (or an arboriculturist adviser) to provide a schedule of tree works. They will advise on what the client requires but also will ensure that the tree will remain in good health, is well-balanced and does not damage wildlife (nesting birds & roosting bats). For a fee, they can prepare the paperwork and submit it on your behalf

Where tree work is recommended in cases of subsidence to a property then an Engineer's report together with an arboriculturist's report will be required to accompany the application

C] The 4th sheet has a Checklist detailing what is required to submit an Application for tree work

D] Please note that a location plan **MUST** be included and clearly show where the tree is on the site (and marked T1, T2 etc.) plus the bordering road names – A North point can be very helpful

E] Then all the original forms plus 3 copies off each, including any separate documents and photographs, should be posted the Council's address quoted at the top of the 1st form

F] To check that a tree has a TPO designation or not, one can contact by email:- planning@basildon.co.uk (Unfortunately, the BBC's online Tree Register requires revising to make it user-friendly)

9] How to Interrogate Planning Applications (PA)

As we understand it, a PA only refers to the structure on the site in question and does not necessarily refer or illustrate the “*soft landscaping*” except for the presence of a TPO tree. Refer to item **[J]** below for the definition of **Crown Reduction** and **Crown Lift**

It is advised to locate the property in question on **Google Maps** where there is also the facility of a **Street View**. A very useful facility to view the tree in question if it is in the front garden.

Google the ‘**Basildon Planning Portal**’

Hit ‘**e-Planning – Search and comment on applications – Basildon**’

Hit ‘**Login or Register to e-Planning now**’ (Then Login or Register)

If you know the PA reference number you are searching for then type it into the box provided or the address of the property. Then Hit the PA and this will throw up its summary and tell you if it is ‘**Pending**’ or has been ‘**Granted**’

One can then proceed with an interrogation by Hitting ‘**Documents**’ on the top line. Then one can open the various ‘**Documents**’ including site plans, elevations, tree surveys, and the Application Form etc. Hitting ‘**Map**’ at this point will take you to a plan of the PA location bordered in red

On top left is ‘**Search**’ for other PAs and a little lower down is ‘**Back to search results**’

An Alternative Way to Interrogate:-

Or, if you want to know what PAs are current in one of our town Wards then after logging in Hit the ‘**weekly / monthly**’ list followed by choosing the ‘**Parish**’ and then the ‘**Ward**’. This then brings up a list of current PAs and one can select a PA by Left Clicking and then interrogate as described above

Using ‘Map’ as an Alternative Way to Interrogate:-

Another way to locate a PA is to initially Hit ‘**Map**’. And then one can roam and zoom in on the area that you are interested in. On the top right under ‘**Legend and Filter**’, Hit ‘**Enable Filter**’ and select the time frame in the dropdown. We usually select 2 Years as a choice. Then tick the ‘**Application**’ box. Then Left Click the red box on the ‘**Map**’ and a white tile will display the PA and then access the ‘**Application Details**’. From then on follow the ‘**Interrogation**’ sequence as above

Submitting a ‘Comment’:-

If you wish to submit a ‘**Comment**’ (assuming the PA has not been already Granted), when in ‘**Documents**’ Hit ‘**Make a Comment**’ and then that displays the ‘**Comment**’ form. Then from the dropdown box for ‘**Commentator Type**’ select what is suitable (I usually Hit ‘**Email Contributor**’). Then for ‘**Stance**’ Hit ‘**Object**’ ‘**Support**’ or ‘**Neutral**’. Then tick the relevant box in ‘**Reason for Comment**’ (I usually hit ‘**Planning Policy**’ if nothing else fits!). Then in the box below describe your views on the PA – Polite and well-crafted of course! Then Hit the ‘**Submit**’ button

Feedback:-

You will receive a confirmation email saying that your ‘**Comment**’ has been registered. Then if you hit ‘**Track**’, when the PA is updated for any reason, you will receive by email (or a letter in the post) explaining what the revision is and if it has been ‘**Refused**’ or ‘**Granted**’

There are quite a few other facilities available on the **Planning Portal** but the basics are as explained above

Please note, only a very few TPO trees are indicated on the ‘**Map**’ facility! The BBC’s online TPO Register is due for revision as it is not fit for public interrogation

10] Planning Application Checklist for Submitting a “Comment”

A] Any non-TPO tree in a garden can be felled without permission. Trees on **Essex County Council’s** (ECC) Highway verges have protection as do trees on **Basildon Borough Council** (BBC) land

B] A **Planning Application** (PA) only refers to the structure and not the trees on a private property. Hence once the land is owned by the Developer, unless a tree has a TPO, he is at liberty to fell. Thus a c.300 year old oak can be legally felled. Rarely do we have advanced warning. Work on a TPO tree requires a PA

C] If a TPO tree is allowed to be felled on **ECC Highways** land or **BBC land**, then at least two replacement trees to be planted nearby with a 5 year maintenance and initial watering clause in place

D] Whether a TPO tree or not - Where building work is to occur near to a tree then trunk and root compaction protection measures should be taken into account. Heavy site machinery and the storage of building materials over a root system cause compaction, stressing the tree that may take several years to die. Thus protection measures should be recommended to the Developer / Contractor by a BBC Tree Officer. The BTW, when checking a PA, will submit a **Comment** to that effect

E] Tree work often involves the removal of deadwood. Technically one does not need **Planning Permission** (PP) to remove deadwood from a TPO tree. However, tree work often involves more than just removing deadwood so one would expect a PA

F] For wildlife reasons, tree work between the months of March to August inclusive should be avoided. Although professional and accredited Tree Surgeons should check for nesting birds and bat roosts before commencing work. In English law the act of disturbing or destroying an active bird's nest, including whilst the nest is under construction, is illegal and carries a hefty fine. Similarly, bat roosts (which are tucked behind bark and in tree holes) are legally protected all year round. Mitigation measures will be required to provide an alternative bat roost close by. Hefty fines are levied on non-compliance. Nice in theory but proving wildlife crime in law is extremely difficult – Much illegal wildlife activity goes on undetected. Small time Developers have a reputation for it as they see it as an impediment to their profitability

G] In English law with reference to trees, there is no **Right to Light**. However, it is applicable to fast growing hedges, *leylandii* for example, and buildings constructed close-by to other buildings, especially high-rise in cities. However, a **Local Authorities** are not unsympathetic and will allow tree work on a case by case basis

H] **Local Authorities** acknowledge and encourage the value of **Street Scene** amenity. It's not a regulatory item but they are keen to promote the idea that tree-lined streets are beneficial to people and to the environment. Trees in front gardens and on verges help to break up the harsh lines of rooflines and brickwork. It's also good for wildlife

I] Towns and villages often have **Conservation Areas** (CA). It's mainly a reference to their Grade Listed buildings and their culturally significant architecture – And usually applicable to the older parts of a town or village. Trees within a CA are effectively protected. A **Local Authority** requires six weeks' notice should tree work be intended

J] Applicable to **Planning Applications - Crown Reduction** and **Crown Lift** – The former refers to lowering the crown's height and sides. It ideally should not exceed 20% otherwise the tree could become stressed. The latter is where the height between ground level and the underside of the tree's canopy is increased – A reference to providing clearance for pedestrians, fences and sheds below

K] Gap-site Developers - Where it is obvious that a small existing structure is to be demolished in a large garden and replaced by several dwellings then trees are often at risk. The Developer is usually keen to fell all the trees and existing "*soft landscaping*". Gap-site Developers are wizened operators and know how to play the Planning rules!

L] House numbers are shown correctly on the **Planning Portal Map** but are often shown incorrectly on **Google Maps**

M] Occasionally one comes across in **Documents** a sketch plan that is scribbled. It is an insult to expect a **BBC Planning Officer** and the **Billericay Town Council** to respond to such scrawl. In such cases, it's best to enter a **Comment** saying that the PA should be re-submitted with a legible diagram for the PA to be taken seriously. All in polite language of course!

N] One can hit “**TRACKING**” on the confirmation email sent from the BBC to receive updates

11] TPO Replacement Trees

Where a County Council or a Local Authority has allowed a TPO tree to be removed for development or for other reasons, replacement tree(s) are usually planted nearby. They should preferably be of a similar species of that removed and a “*standard*” of a reasonable height. Technically there will be a watering regime put in place by the Council but it’s always useful as a fail-safe measure if the local residents could also water the tree on a regular basis for at least the first year and especially in times of drought. A replacement TPO tree will inherit a TPO status

12] The Governmental Tree Preservation Portal and its Revision

The following weblink explains the current English law with respect Tree Preservation Orders (TPO) – “*Communities and Local Government – Protected trees – A guide to tree preservation procedures*”.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/244528/2127793.pdf

However, an article in the Guardian points to how the Governmental Tree Preservation Portal outlined is intended to be revised – “*Illegal Tree Felling in England to be Addressed*” – 23rd December 2022

https://www.theguardian.com/environment/2022/dec/23/tree-felling-punishable-jail-term-uncapped-fines?CMP=Share_AndroidApp_Other

The article outlines the need to address how large scale development is now threatening woodlands and trees generally. This legislative revision is thus well-timed. An aspect of the revision will surely relate to how trees are now realized to be a fundamental aspect to combat the **Climate Crisis** (CC) and should be retained or replaced where practical. The controversial HS2 rail project and its enormous toll on Ancient Woodlands is a case in point

13] The “Street Scene” Amenity Concept

In general, street trees on County Council Highway verges and in front gardens add ambience to a road for the residents and passers-by and help soften the harsh lines of brick and roof ridge tiles. Street trees exchange air pollution for oxygen and are good for house prices as they can add character to an area. They will have legal protection if on **County Council Highway** verges but will be vulnerable in private gardens if without a TPO

14] Tree Protection on a Building Site

Whether trees are the subject of a TPO or not, trees on a building site that are to remain need temporary protection from the construction work going on around them. For heavy machinery and or the stacking of building materials over a tree’s root system will damage them by compression. There is also the risk that heavy machinery working nearby will damage the trunk and the lower canopy branches. Care must be taken with nearby trench excavation such that a minimum of roots should be cut and care being taken when backfilled. The ground level around a retained tree **must not** be lowered as most roots are usually close to the surface

To avoid this tree damage, Local Authorities require layers of polystyrene to be laid over the root system at least as far out as the diameter of the tree’s overhead leaf canopy and a temporary fence erected around the trunk. Diagrams of the root protection areas are usually required to be shown on the plan drawings submitted with the Developer’s **Planning Application**

Arborist’s quote examples that when such protection is not carried out on a building site; trees can die several years later especially when their root system has been damaged and the reason has long been forgotten. This is another area where the gap-site Developer may not follow recommended procedure

15] A Right to Light

With reference to trees, there is no such thing in English law as **A Right to Light** as there is when a tall building is planned to be built next to another. The exception is when a quick growing hedge such as a *leylandii* is planted next to a dwelling, for in 20 years it can be blocking light out from a window and casting unreasonable shade. However, Local Authorities can be sympathetic and judge each request to provide more light on a case-by-case basis and usually recommend tree surgery work rather than tree removal

16] On Hiring a Tree Surgeon – Cautionary Advice

The Billericay Tree Warden Group (BTW) does not normally recommend any particular Tree Surgeon Business. It is up to the member of the public (the client) who wants tree work to be undertaken to do their own research. By word of mouth can be a reliable pointer



Guidelines to Achieve the Hiring of a Tree Surgeon:-

Search the **Arboricultural Association** website (trees.org.uk) for an **Accredited Tree Surgeon** business in your area. These should have the necessary insurances for:- *Public Liability Insurance – Employees Liability – Personal Accident – Professional Indemnity – Life Insurance and Tools and Plant Insurance*. Needless to say, hire fees of an **Accredited Tree Surgeon** will be more than a non-Accredited business but one is paying for the legal protection and peace-of-mind

Should the work involve the removal of a substantial tree, the owner of the tree should independently check with the **Local Authority** (LA) if the tree has protection status (TPO) or not. The Tree Surgeon should also check the TPO status of the tree with the LA. TPO trees felled illegally carry a £20,000 fine and both the owner of the tree and the Tree Surgeon will be liable. Ignorance of the law is no protection

Permission for felling a TPO tree would have been the subject of a **Planning Application** that has been Granted. The Tree Surgeon should have the paperwork issued by **BBC Planning** to support the felling

Further advice for choosing a Tree Surgeon is to be found on the **Arboricultural Association** website:- <https://www.trees.org.uk/Help-Advice/Public/Choose-your-Tree-Surgeon>

17] Tree Surgery – Some Technical Terms

Always seek the advice of an **Accredited Tree Surgeon** for any work involving those listed below. Should such work be required for a TPO tree then a **Planning Application** will need to be submitted to the **Local Authority**

Arisings – The debris left behind after a tree surgery operation. Branches, twigs, foliage, leaves and wood chips

Coronet Cut – A cut that resembles a natural jagged feature to encourage aging and rot so speeding up the biodiversity enhancement. Used in the **veteranisation** process

Crown – The foliage bearing section of a tree formed by its branches and not by any clear trunk or stem

Crown Lift – Crown Lift is removing the lower branches to allow passage below or to clear the roof of a shed or fence. Removal of main branches is not recommended. Crown lifting should be specified with reference to a fixed point, e.g. “*crown lift to give 3.5m clearance above ground level*”

Crown Reduction - The reduction in height and/or spread of the crown (the foliage bearing portions) of a tree. Crown Reduction may be used to reduce mechanical stress on individual branches or the whole tree, make the tree more suited to its immediate environment or to reduce the effects of shading and light loss, etc. The final result should retain the main framework of the crown, and so a significant proportion of the leaf bearing structure, and leave a similar, although reduced outline, and not necessarily achieve symmetry for its own sake except for an overall structural balance.

Deadwood – See under Tree Preservation Notes

Dormant - The inactive condition of a tree, usually during the coldest months of the year when there is little or no growth and leaves of deciduous trees have been shed

Pollarding – Is a method of keeping a tree in a juvenile state and at a restricted height where the branches are annually / regularly cut back to just to the tree’s bare branches. The Romans were advocates of pollarding to provide food for their livestock. Pollarding is only recommended for certain tree species

Stump Grinding - The complete removal of a tree’s stump through the use of a specialized machine.

Topping (Topping & Lopping now an Outdated Term) - Lopping refers to the removal of large side branches (the making of vertical cuts) and topping refers to the removal of large portions of the crown of the tree (the making of horizontal cuts, generally through the main stems). A term often used to describe crude, heavy-handed or inappropriate pruning

Windthrow & Windsnap – Windthrow is when a storm topples a tree at the interface between tree and the soil and even lifts the rootball themselves. Whereas **Windsnap** refers to where the main trunk totally fails above ground level

18] Wildlife Aspects with Regards to Tree Surgery – Birds & Bats

Ideally, tree work should only be carried outside of the bird breeding season – Most birds' nest between March to August inclusive –As advised by the **Royal Society for the Protection of Birds (RSPB)**. In English law it is illegal to disturb or destroy an active bird's nest; including whilst the nest is being constructed. It is also illegal to disturb or destroy a bat roost at any time of the year whether the roost is in use or not. If the tree has a "*bat potential*" then a bat survey will need to be undertaken by a specialist before the tree work is carried out and they will advise accordingly. Damage to the bat roost will require a mitigation exercise to provide an alternative bat roost close by. Advice can be obtained from the **Bat Conservation Trust (BCT)**. There are significant fines for a contravention

19] Gap Site Developers – A Reputation for Unnecessary Tree Removal

It has become apparent that some of the entrepreneurial smaller builders take advantage, but not necessarily illegally, in **clear-felling** a site of trees without consideration of which trees could remain. This has highlighted the need to regularly trawl the BBC's **Planning Portal** with a view to identifying **Planning Applications (PA)** that could threaten mature trees. Typically, where a bungalow is sited in a large garden that is to be replaced by a larger dwelling, the risk of **clear-felling** is high. A PA usually only refers to the structure and not the non-TPO trees and existing "*soft landscaping*" on a property. So a PA can be submitted after the garden clearance and all trees have been removed. Such tree removal has a habit of occurring on a Sunday morning!

20] Some Tree-related Associations, Societies & Trusts

The Royal Botanic Gardens Kew <https://www.kew.org/>

Kew Gardens has the largest and most diverse botanical and mycological collections in the world. Founded in 1840, from the exotic garden at Kew Park, its living collections include some of the 27,000 taxa curated by **Royal Botanic Gardens Kew**, while the herbarium, one of the largest in the world, has over 8.5 million preserved plant and fungal specimens. The library contains more than 750,000 volumes, and the illustrations collection contains more than 175,000 prints and drawings of plants.

Woodland Trust www.woodlandtrust.org.uk

The source of our inspiration – 43,069,424 trees planted / 1089 woods saved / 34,075 hectares of Ancient woodland under restoration – Membership is recommended (WT 2019 data)

A website to thoroughly explore for – Ancient Tree Inventory - Protecting trees – Current campaigns – Ancient woodland restoration – Influencing government policy – Plant trees - Free tree packs - Trees for schools – Woodland wildlife, plants & fungi - Tree pests and diseases

Ancient Tree Forum <https://www.ancienttreeforum.org.uk/>

Ancient and other veteran trees are a vital and treasured part of our history, and our natural and cultural landscape, and Britain is thought to have the greatest number of ancient trees in northern Europe. The **Ancient Tree Forum** seeks to secure the long term future of these ecosystems through promoting best management and conservation practice, lobbying governments over their recognition and protection

Arboricultural Association

<https://www.trees.org.uk/Help-Advice/Public/A-brief-guide-to-legislation-for-trees>

The professional website for Accredited Tree Surgeons – Definitions & Legislation

Forestry Commission <https://www.gov.uk/government/organisations/forestry-commission>

Countryside Stewardship – Tree felling – Felling licences – Create woodland – Create a woodland management plan – Report suspected illegal tree felling – Tree pests & diseases – e-Alerts

Forestry England <https://www.forestryengland.uk/>

Forestry England is a division of the Forestry Commission. It manages c.1,500 woodland and forestry areas across England with a total area of 250,000 hectares (617,765 acres) with 68,000 hectares (168,030 acres) designated as SSSI's. Public membership is encouraged and the woodlands and their forestry areas can be visited

Forestry Stewardship Council <https://www.fsc.org/>

Sustainable Certification System & Labelling - Forest Management – Chain of Custody

Royal Forestry Society <https://www.rfs.org.uk/>

An education charity inspiring passion and excellence in woodland management

Tree Charter <https://treecharter.uk/>

The Charter for Trees, Woods and People sets out the principles for a society in which people and trees can stand stronger together

Trees for Cities <https://www.treesforcities.org/>

With 80% of us living in urban areas the call is even now greater to combat air pollution and green up our streets

Tree Council <https://www.treecouncil.org.uk/>

The Tree Council is one of the UK's leading charities for trees, promoting their importance in a changing environment and promotes National Tree Week, the UK's largest annual celebration of trees. Each year, the country's conservation sector, volunteer and tree-lovers come together to plant thousands of trees to mark the start of the tree planting season in late November to early December

Tree Register <https://www.treeregister.org/membership.shtml>

A unique record of Notable and Ancient trees in Britain and Ireland

21] The Number of Tree Species at Home & Abroad Put into Context

World Tree Species

There are c.73,300 known tree species throughout the world with the bulk of them occurring in the tropics. Researchers and ecologists continue to find new tree species in the tropics and in particular in the Amazonian Basin rainforest. The Royal Botanic Gardens at Kew is working in cooperation with other biological institutes and universities around the world amassing and cataloguing the scientific data. Due to deforestation it is thought that many tree species may become extinct before they have been discovered. Much is explained in the following Guardian article:-

<https://www.theguardian.com/environment/2022/jan/31/global-count-estimates-earth-has-73000-tree-species-bletchley-park-good-turing-frequency-estimation>

British Isles Tree Species

According to different authorities and excluding shrubs, there are c.34 to c.45 native tree species in the British Isles blurred by the fact that some have been introduced in the distant past and have now become naturalized. However, there have been c.3000 introduced non-native tree species into the British isles from other temperate zones around the world. Many sourced by the Victorian plant collectors for their arboretums and parklands supplemented by modern-day plant collectors since that time.

22] Native & Naturalized Trees of the British Isles

[Mainly as per Woodland Trust data]

Alder – *Alnus glutinosa*

Alder Buckthorn – *Frangula alnus*

Ash – *Fraxinus excelsior*

Aspen – *Populus tremula*

Beech Common – *Fagus sylvatica*

Birch Downy – *Betula pubescens*

Maple Field – *Acer campestre*

Oak English – *Quercus robur*

Oak Sessile – *Quercus petraea*

Pear Plymouth – *Pyrus cordata* (Rare)

Pine Scots – *Pinus sylvestris*

Poplar Black – *Populus nigra* (Rare)

Birch Silver – *Betula pendula*
 Blackthorn (Sloe) – *Prunus spinosa* (Shrub)
 Box Common – *Buxus sempervirens*
 Buckthorn – *Rhamnus cathartica*
 Ireland)
 Cherry Bird – *Prunus padus*
 Cherry Wild (Gean) *Prunus avium*
 Crab Apple – *Malus sylvestris*
 Dogwood – *Cornus sanguinea* (Shrub-like)
 Elder - *Sambucus nigra*
 Elm Wych – *Ulmus glabra*
 Guelder Rose – *Viburnum opulus* (Shrub-like)
 Hawthorn Common (May) - *Crataegus monogyna*
 Hawthorn Midland – *Crataegus laevigata*
 Hazel – *Corylus avellana*
 Holly – *Ilex aquifolium*
 Hornbeam – *Carpinus betulus*
high!
 Juniper – *Juniperus communis*
 Lime Common – *Tilia x europaea*
 Lime Large-leaved – *Tilia platyphyllos*
 Lime Small-leaved – *Tilia cordata*

Rowan – *Sorbus aucuparia*
 Service Tree Wild - *Sorbus torminalis*
 [An indicator of Ancient Woodland]
 Strawberry Tree – *Arbutus unedo* (Native to SW
 Spindle – *Euonymus europaea*
 Whitebeam – *Sorbus aria*
 Willow Bay – *Salix pentandra*
 Willow Crack – *Salix fragilis*
 Willow Goat – *Salix caprea*
 Willow Grey (Common Sallow)
Salix cinerea subsp. Oleifolia
 Willow Osier – *Salix viminalis*
 Willow White – *Salix alba* (Cricket Bat Willow!)
 Yew - *Taxus baccata*

[45 - A number that purists may contest as too

Those Naturalized

English Elm – *Ulmus procera* / Smooth-leaved Elm - *Ulmus minor* / Sweet Chestnut - *Castanea sativa* /
 Horse Chestnut - *Aesculus hippocastanum* / Sycamore - *Acer pseudoplatanus* / Norway Maple – *Acer
 platanoides*

There are several very rare native Whitebeam species in Devon & Cornwall. Arborists & purists quibble over several species as to what is truly native and what has been introduced by early settlers from the European land mass. Hence the “*Those Naturalized*” list. The above list does not include the shrubs; the definition of which is a grey area. They are usually defined as multi-stemmed & medium height plants.

23] Tree Identification

Collins Field Guide – The Most Comprehensive Field Guide to the Trees of Britain & Europe by Owen Johnson and David More.

Also the **Woodland Trust** website – Tree Identification: How to identify native & non-native trees

<https://www.woodlandtrust.org.uk/trees-woods-and-wildlife/british-trees/a-z-of-british-trees/>

The WT supplies a free Tree ID APP for Android and iPhone

There are c.45 native and naturalized tree species in the British Isles and many non-native trees have also been introduced into our city and town parks, country estates and especially in the arboretums. Getting to know the species that one is likely to come across in one's own locality is the key. The quickest way along the learning curve is to engage in a combination of Bookwork, Fieldwork and talking to those who live the subject. Initially concentrate with the deciduous tree species as many conifers present challenging ID problems. Tree ID is not a perfect science! When examining a tree, look for the three crucial clues to aid ID - Leaf Shape, Fruit and its Bark Patterning. Beware -Tree ID labels can be swapped over! Take a few sample leaves home and compare them with a book illustration. A pair of binoculars is recommended as some trees are difficult to approach – e.g., on private land or in an adjacent field. Needless to say, tree ID is better approached in the seasons other than winter. So in winter, look for fallen fruits, nuts and seeds below the tree for an additional clue – detective work! Learning the main technical terms for a leaf helps interpret the fine print in a tree ID book. We as a Group tend to concentrate on oaks – There are two native species - **English Oak** (*Quercus robur*), also known as Pendunculate and **Sessile Oak** (*Quercus petraeus*). The leaf of an English Oak is without a stalk as it joins the twig whereas the Sessile Oak has a short stalk. In our region the English Oak is predominant whereas the Sessile Oak thrives west and north of Oxford but some examples do occur in our region, including hybrids, so vigilance is required.

Traps for the unwary – Bark patterns and its texture can vary with age as can leaf size of very young trees. Sycamores and Norway Maple leaves are very similar but the latter has a grey and finely ridged bark. Conifer trees can be particularly difficult to ID (experts often use a microscope to study leaf detail!) but the Cedars (all non-natives) should be identifiable: A Yew Tree is not a conifer! Leyland Cypress *leylandii* receives a bad press because people often plant them in the wrong place where they quickly grow much taller than anticipated and cause a **Right to Light** [Refer to item 15] problem and excess shade. However, they are extremely good for roosting birds especially in harsh winter conditions

24] A Brief History of British Woodlands – The Royal Forestry Society (RFS)

<https://rfs.org.uk/wp-content/uploads/2021/05/7.-A-Brief-History-of-British-Woodlands.pdf>

From 10,000 BC to the present day. As the last ice age retreated some 12,000 years ago it spurred on a wave of tree species advancing north from the European landmass. From then on the article describes how through time climate and the actions of Man fashioned our woodland cover through the ages

25] Woodlands and Biodiversity – The Royal Forestry Society (RFS)

Managed woodlands play host to a wider variety of wildlife than those left to their own devices. How this is achieved is described in the weblink article below

<https://rfs.org.uk/wp-content/uploads/2021/05/6-Biodiversity.pdf>

26] Veteranisation – Enhancing Biodiversity

Is a tool to increase biodiversity, especially in same age woodlands and forests by using tools to speed up the aging process of individual trees. A concept carried out by an **arboriculturist** using a wide variety of inventive skills to speed up a medium aged tree (but never a veteran tree) more attractive to a range of wildlife; including insects, bats, birds, fungi, lichen and mosses as if to bring forward its elderly self. Thus duplicating the multiple niches for a suite of wildlife that an ancient tree would provide. As described above, elephants in Africa, bears and beavers in Europe all speed up the aging process of trees. The following website illustrates the techniques that have evolved to pursue this aim:-

<https://www.trees.org.uk/Trees.org.uk/media/Trees-org.uk/Documents/Conference19/TueAM-3-Vikki-Bengtsson.pdf>

27] Woodlands & the Case for Coppicing

Coppicing of our woodlands can be a very emotive subject and seen by some as a destructive intrusion. Many object to the process and cannot see why a wood is not left alone to its own devices. An explanation is provided below

Coppicing is part of our cultural history, when timber was in great demand for house building, constructing fences and providing props and poles plus a whole range of essential smaller items. A tree is cut-down to its base, known as a stool that then regenerates multi-stems that are later harvested. It provided livelihoods over time as coppicing is a sustainable resource. Historically, **A wood that pays is a wood that stays**. Woods that were not coppiced and thus did not provide local livelihoods were liable to be felled to make way for agricultural farming. Coppicing is a form of traditional **silviculture** that has safeguarded our woods through the centuries. Without the ancient art of coppicing we would have even less woodlands than we have today.

A woodland is coppiced on a rotational cycle from 5 to 20 years depending on the wood product opted for and the tree species. Typically coppiced woodland is harvested in sections or **coups** on a rotational basis. In this way, a crop is available each year somewhere in the woodland and the **coups** being of different ages benefit wildlife well. Usually, a meaningful portion of woodland is left intact and un-coppiced so it retains its original ancient character

In **Ancient Woodland**, the tree roots of a successively coppiced stool are also ancient. Woodlands with a mix of Horse Chestnut, Hornbeam and Hazel lend themselves to a coppice regime as regrowth is relatively rapid. Thus areas across the woodland are in different stages of regeneration. This has the effect of providing a mosaic of habitats that serves biodiversity well

Un-coppiced woodlands have a dense canopy coverage that suppresses the plant growth down in the understorey. Coppicing provides clearings where a variety of flora and their associated insects, butterflies, birds and mammals can flourish that would otherwise be at a low density or even absent. Coppicing today is about more about encouraging wildlife conservation but also keeping traditional crafts alive at a cultural level

The definition of an **Ancient Woodland** is described as a wood that has existed continuously since the year 1600 AD or before. Planting of woodland was uncommon before that date, so a wood present in 1600 is likely to have developed naturally

28] Buying a Small Woodland - Guidance

Advice from the Hampshire Test Valley Borough Council – If you are looking to buy a small woodland this can be a very rewarding experience as small woodlands are important as nature conservation sites, provide space for recreational and amenity, as well as enhance the landscape. They can also provide a source of local wood products and be a place of great enjoyment and satisfaction

Adage:- An aim to woodland ownership is to leave it in a better condition for wildlife than when first found!

However, there is good reason to be cautious and research thoroughly the duties that are imposed on woodland owners. This to ensure that you have considered all the available information and sought professional advice prior to making that woodland purchase no matter how small a piece of woodland it is. Below is a list of initial considerations and a summary of the main duties imposed on woodland owners to consider:-

The scale of the woodland area and its special links / Public access or restricted access and footpaths through the site / Selling potential in the future / Management requirements now and in the future / Funding including purchase price and long-term management requirements / Exclusions, as to what you can or can't do with the woodland in terms of use or access / Legal duties (duty of care) how onerous are these and are there any particular additional legal constraints like Tree Preservation Orders or covenants / Wildlife constraints with protected species, Sites of Special Scientific Interest or protected habitats / Maintenance, is the wood well-maintained or in the need of much work / Public Liability Insurance / Sudden tree disease outbreaks or threats or threats to woodlands and potential cost implications

29] Ancient and Veteran Trees and other Definitions

Categorizing aspects of nature is not precise and usually involves subjective interpretations. Trees of the same species will grow at different rates due to rainfall, soil type, climatic differences, and exposure to the elements and Man's intervention

An Ancient tree - Different tree species live longer than others, so a Silver Birch may be considered ancient at 150 years of age whereas an oak may be considered ancient at 400 years of age. Yew trees and Olive trees in southern Europe can potentially live for over a thousand year of age. Look for a squat appearance, leafless branches above the crown's foliage (stag-head) and often a hollow interior

A Veteran tree is usually one that that shows ancient characteristics. The saying goes that "*Ancient trees are all veterans but not all veteran trees are ancient*"

A Heritage tree is one whose age can be linked to a specific event in history or they have a particular landscape character. A line of veteran / ancient trees left standing and built into a modern residential estate probably marks the demarcation between landownership many years ago

A Notable tree is one that serves as a local landmark whether of significant age or not, characterising a street or park. A tall tree on the skyline seen from various angles will fall into the category of a Notable tree

A Champion tree is one that is the tallest and with a significant girth and is the best of species regionally. There is a dedicated **Tree Register** website <https://www.treeregister.org/> that records the largest and tallest Champion trees documented in the British Isles

A more comprehensive description is to be found on the **Ancient Tree Forum** website:-
<https://www.ancienttreeforum.org.uk/ancient-trees/what-are-ancient-veteran-trees/>

30] The Various Tree Forms Illustrated (Maiden, Pollard, Coppice, Multi-stem etc.)

There is a very instructive website by the Woodland Trust that illustrates the various tree forms encountered and how to identify them. It also illustrates how trees can recover and live long lives after being regularly used to provide fencing and animal fodder over the centuries. Trees have evolved over geological time to recover from the ravages of large herbivores, mostly now extinct, pulling them apart for their bark and foliage. However, the plains of Africa have the tree damaging elephant and the wilds of Europe have the Eurasian Brown and Black Bears. The Eurasian Beaver fells trees for food and building material whereby the trees are effectively coppiced on the stream sides and spring back to life encouraging biodiversity.

<https://ati.woodlandtrust.org.uk/how-to-record/recording-guide/how-to-record-tree-form/>

31] Communication Between Trees

Research continues, but there is now clear evidence that plants communicate. These underground connections between **mycorrhizal** fungal root-associated systems have been described as the “*wood wide-web*” and communicate by chemical and electrical impulses! And large trees will connect up with smaller trees that are struggling for survival whilst overshadowed and have extra nutrients delivered to them. This help can also cross the species barrier. Trees improve their resistance to disease when forming a **mycorrhizal** fungal root-associated relationship and this is passed onto others in the network. There is also evidence that when a tree is under attack by a damaging agent (an aphid attack for example) it will communicate this to other trees via the underground network so to trigger their defence mechanisms. The communication will address the threat that is occurring. Researchers have identified a “*mother tree*” within a woodland that appears to look after the younger trees about her. Further subtleties of this association remain to be discovered. Thus it has been put forward that woodland is a “society” rather than just a collection of random trees. This phenomenon of communication between trees has been likened to “*biological intelligence*”. Another form of “*biological intelligence*” is to be found in the reactions of slime moulds. Refer to item 54.

32] How to Estimate the Age of an Oak

The Woodland Trust (WT) has prepared advice on how to age an oak in approximate terms. A tree’s progress through time will reflect the various conditions that it has experienced since it was a sapling. The geographical area where it resides, the soil type and the weather conditions it has experienced through time. By measuring the girth (circumference) of the trunk at chest height with a tape measure and comparing the result with the WT’s **Ready Reckoner** it will not only give the approximate age but also where it slots into the historical background. This is a good way to determine if an oak is over 300 years of age that will point towards it being an ancient tree

<https://www.wbrc.org.uk/atp/Estimating%20Age%20of%20Oaks%20-%20Woodland%20Trust.pdf>

In the UK, the oldest known oaks existing today are a little over 1000 years old. Oak trees play host to a wide assemblage of wildlife and provide a habitat for insects, bats, birds, fungi, lichen and mosses

To determine the age of an oak, professional **arborists** sometimes resort to a **Tree Incremental Borer**. It resembles a hollow drill bit with a handle that is manually screwed horizontally halfway through the trunk at chest height. The core can then be extracted and the rings counted. The hole in the trunk is sealed with putty to stop the ingress of fungal spores and insects

Different tree species grow at different rates, do not live as long (except for Yews) and reach different sizes. They can be considered “ancient” at a different age

The term “*Ancient Woodland*” refers to a wood that has existed in a continuous state since 1600 AD. Many trees may not appear to be very old but their rootstock can be ancient.

33] How to Estimate the Height of a Tree

1] Get a stick that is equal in length to the distance from your eye (cheekbone) to your fingers when your arm is fully extended in front of your face. Break off part of the stick or mark it at the correct length if you don't find one that is exactly right

2] Grasp the stick by the tips of the thumb and index finger and hold it out in front of you with your arm fully extended. The stick must be held vertical

3] Walk towards or away from the tree until the top of the stick is visually lined up with the top of the tree and the bottom of the stick is lined up with the bottom of the tree. Your line of sight to the tree base should be as close as possible to horizontal. In sighting the top and bottom of the stick rotate your eye rather than your head

4] Take one giant step back to account for your height to lessen the scientific error in the height of the tree

5] The distance from your feet to the base of the tree is equal to the height of the tree. Measure the distance with a measuring tape

There are several other methods to achieve the same ends [Courtesy of FortWhyte Alive]

34] Boundary Trees – Culturally Important

In towns one occasionally comes across a line of veteran trees that follow the lie of a road. They usually indicate an old boundary between two estates or farms that existed long ago whose land has long since been sold with only the trees indicating their past existence. The trees predate the construction of the residential estate indicating that the Town Planner has deliberately worked the trees into the site plan. We have examples of this in Billericay and a classic case is along Fairfield Rise in south-west Billericay where several veteran oaks (see inset) are on the grass verge or in the front gardens that terminate at Sun Corner (Queen Elizabeth 11 Field) adjacent to Quilters School. It is hoped that when the revised **Local Plan** becomes live that the Town Planners / Developers will follow this respect for our local Tree Heritage and also work them into their site plans. For added protection such boundary trees usually have the protection of a TPO or if on County Council land or Local Authority land are automatically protected

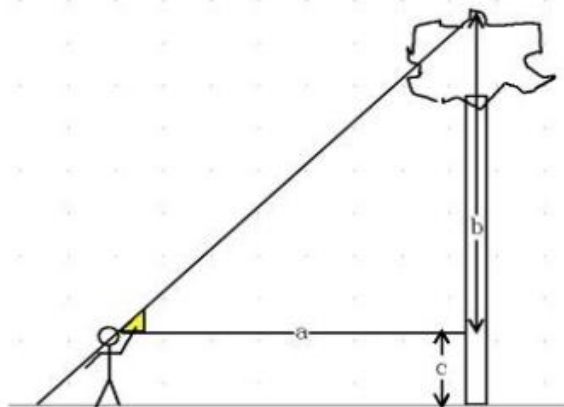


35] Planting a Tree – A Step by Step Guide

The advice is to – “**Plant the Right Tree, in the Right Place for the Right Reason**”. The soil type should also be taken into consideration and a choice between a deciduous tree and an evergreen

The following advice is a reference to planting a tree in a garden that is best illustrated on the detailed website of the Royal Horticultural Society (RHS):- <https://www.rhs.org.uk/advice/how-to-plant-a-tree>
Although more expensive, it is better to obtain a potted tree rather than a bare-root tree as the former has a better chance of survival

Choose a tree species, native, fruit or ornamental, that will not overshadow the garden when mature. Oak trees should not be planted near to a house as when they mature decades ahead they can cause subsidence issues to the property! And consider that the tree will receive sufficient light. There are cultivar tree species of a smaller size and also suitable for containers. The best time to plant is from the end of October to the beginning of March inclusive. A tree guard is always recommended as wildlife mammal visitors may nibble the bark! We now avoid planting in spring as in recent years we have experienced prolonged droughts. Regular watering is key to the newly planted tree's survival



36] Large Scale Tree Planting - This is a very comprehensive subject that is well-addressed by the Tree Council: <https://treecouncil.org.uk/wp-content/uploads/2021/06/Right-tree-in-the-right-place.pdf> that covers the various habitats across large areas where tree planting is recommended and to be avoided

37] Fungi & Trees

Fungi have the unique ability to decompose cellulose that is the main constituent of wood. Without fungi present in the ecosystem, the essential breaking down and recycling of dead plant and animal material would not occur. It is the saprophytic fungi that breaks down the dead plant and animal material on the wood floor and is evidenced by moulds, mushrooms and yeasts

Mycorrhizal (root-associated fungi) co-exist with the tree's root system in a symbiotic mutualistic relationship – An association of mutual benefit. The fungi obtain energy from the tree sugars (carbohydrates) produced by the action of photosynthesis in the tree's leaf coverage and the tree benefits from the additional nitrogen, phosphorous and water supplied due to the fungal action in the soil. **Mycorrhizal** fungi is a complex network of thin branch-like hyphae that runs through the soil, leaf litter, wood and plant tissue. A spoonful of soil can contain up to seven miles of these almost invisible fungal coiled tubular threads! The importance of this positive relationship between **mycorrhizal** root-associated fungi and plant life cannot be overstated. It is a key element of the planet's life-support system. Presumably it is through the action of the **mycorrhizal** fungi that trees communicate with each other. For more on this refer to item **[29]**

Fungus in the upper tree is described as **endophytic** in action and forms a symbiotic relationship between the fungus and the tree. This is mostly beneficial (mutualistic) to both the fungi and the tree but some are parasitic. The parasitic case is where a species of bracket fungi (a polypore, the spore emitting fruiting body) has grown out from the trunk and by that time would have damaged the tree's heartwood and eventually the tree will suffer structural failure. Some tree species put up a chemical resistance to this attack and shut off its connection to the branch or the limb infected; eventually shedding the damaged timber as deadwood. It will then be continued to be broken down and recycled with saprophytic fungi

The classic fungus killer of trees is the **Honey Fungus**. It's found in dense clusters at the base of trees from where it attacks the tree's root system. There are several species of **Honey Fungus** with some less lethal than others

38] Tree Pests & Diseases

From the **Woodland Trust** website:-

<https://www.woodlandtrust.org.uk/visiting-woods/tree-diseases-and-pests/key-threats/>

There are at least 20 introduced pests and diseases attacking our native trees. Here are the main villains attacking trees in our part of the country. All these diseases, if detected are "**Reportable**" to the Forestry Commission

Dutch Elm Disease (DED):- *Symptoms – Fungal attack invades the water carrying capacity of the tree. Upper canopy leaves turn yellow and wilt finally falling away well before autumn. Causes – The fungal infection is spread by the Elm Bark Beetle – Thought to have been introduced from Asia*

Acute Oak Decline:- *Symptoms – Black weeping lesions on the trunk and leaf loss in the upper canopy. Causes – Unclear*

Oak Processionary Moth:- *Symptoms – Large numbers of caterpillars, nose-to-tail, consuming much foliage thus stressing the tree. **WARNING!** Touching the caterpillars can cause a severe allergic reaction!*

Ash Dieback:- *Fraxinus chalara – Symptoms – In mature trees, dieback of twigs and branches in the crown Causes – Spores from fruiting fungal bodies on fallen ash leaves and then dispersed by wind*

Horse Chestnut Canker:- *Symptoms – Extensive bleeding areas on the trunk Causes – Bacterium probably more virulent due to mild winters and wet springs*

Horse Chestnut Leaf Minor:- *Symptoms – Numerous disfiguring brown blotches on leaves.*
Causes- The result of moth larvae “mining” in the thickness of the leaf – Not fatal to the tree – Not a reason to fell.

Sweet Chestnut Blight:- *Symptoms – Stem “girdling” where the canker surrounds and kills the branches.*
Often accompanied by orange fungal spores

Scots Pine – Red Band Needle Blight:- *Symptoms – Pine needles turning yellow and then red-brown.*
Causes – Fungal attack

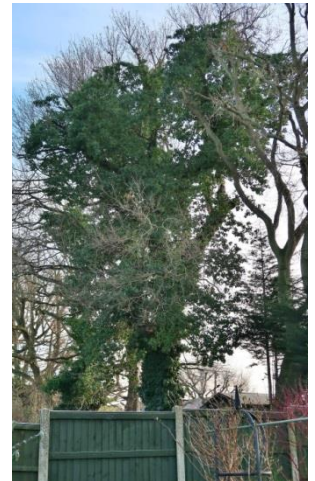
Suspected cases:- **Report it to the Forestry Commission via their [Tree Alert Reporting Tool](https://www.forestryresearch.gov.uk/tools-and-resources/tree-alert/)**
<https://www.forestryresearch.gov.uk/tools-and-resources/tree-alert/>

39] Ivy – Boon or Bane?

Excess coverage of ivy on a standalone tree can in time lead to a **Health & Safety** (H&S) **windthrow** situation but within woodland, there is less chance of it. Ivy is part of our natural flora and serves its purpose of providing nesting sites and food for birds while hosting a variety of insect life. Ivy is a biodiversity asset

Ivy does not strangle a tree or take nutrients from it but just gains support although it does compete for sunlight that in the long-term can affect the supporting tree's lifespan

The Basildon Council Tree Officers inform us that **where ivy coverage is significant each case should be judged on its merits** and not removed at every opportunity. In law, at the end of the day, an ivy-clad tree is the responsibility of the owner whose land the tree is on. Qualified Tree Surgeons will also advise on a particular situation and Basildon Council Planning would need to be informed of any action advised if it were to apply to a TPO designated tree on private land. Ivy-clad trees that are considered to be posing a H&S issue on **Essex County Council / Basildon Council** land or within a **Conservation Area** should be referred to those authorities.



Several years ago on the Common in the Little Burstead Parish, it suffered from someone without authorization hacksawing through the base of over half a dozen c.4inch diameter ivy stems on as many veteran oaks. It was an act of ecological vandalism and local naturalists were appalled. Such ivy could be c.50 years of age and were part of the local ecology and character. There is widespread ignorance about the existence of ivy and how it is part of our natural flora.

40] Urban Verges – A History

Verge land in our Borough is owned by either the **Essex County Council** (ECC) or the **Basildon Borough Council** (BBC). And all trees on them are effectively protected as per a TPO. But it is the BBC who is responsible for their maintenance and their **Health & Safety** issues (H&S)

However, various house owners have taken it upon themselves to pave or plant narrow verges over – In general terms, this is seen as illegal. Looking into the issue, this transpires to be an inconclusive issue to pursue as there are quite a few archaic laws on the statute books referring to verges and their interpretation is up to the judge presiding over a court on a case-by-case basis

So our advice to an enquiry about verges would be to relate how unclear the law is on such an issue and advise that the property owner refer the matter to the ECC / BBC for advice. There will be great reluctance to spend public money and tie up Council Officer's time on such a court case. Our green verges, some with trees, are a valuable part of the "*Street Scene*" and in our opinion should remain as such

It is estimated that there are 178,000 hectares (440,000 acres) of verges in **England & Wales**, much of which is out in the countryside. Councils are becoming more aware how these verges can support a wildflower rich sward and contribute to the enhancement of wildlife biodiversity. Indeed, the EWT and their recent "*Living Landscape*" initiative have planted various stretches of verge with native meadow flowers and shrubs throughout the county. The key to it is getting the relevant permissions to carry out such an exercise and the

BBC to maintain them. Local Authorities are now seeing the environmental wisdom of letting verges and green areas return to a more natural state

Interestingly, verges evolved centuries ago because if a public road was blocked by roadwork maintenance, progress for horses and carts can still be maintained via the verges on either side of the road. And a **Public Right of Way** (PROW) is still maintained without obstructions. Thus by law, a road had to have verges between the borders of the properties either side of the road. But mindful that it only applies to Adopted roads (that is public roads) and not to un-Adopted roads (that is private roads)

In case one wants to delve into this legalistic nightmare subject, **The Open Spaces Society** website offers a long and convoluting read that assuredly signifies how archaic some of our laws now are!

41] “Air Spading”

During building site operations, there may come a time when a tree’s roots may need to be exposed to allow for a new drainage run, or new paving to run close by. There is a process called **Air Spading** that uses compressed air to partially expose an area of tree roots with minimal damage to them; as hand digging would inevitably do. Loose soil is then removed by using a soil vacuum. Thus a trench can be created for service pipe installation through the tangle of roots and any careful trimming of roots required can then be carried out before the trench is carefully backfilled. There are specialist **arborist** contractors that carry out this work. It is also an operation where a tree that has suffered compaction of its roots can have them aerated

42] HM Land Registry (There is no such thing as No Man’s Land)

<https://www.gov.uk/government/collections/how-to-use-the-land-registry-portal>

A government online service where one can obtain details of a property and the land it sits on. This is useful when one needs to track down the owner of a tree. However, only c.85% of land in England and Wales is registered

There is no such thing as **No Man’s Land**. All land is owned by someone, an individual, an authority or the Crown. But there are parcels or slivers of land that are unregistered and the legal owners are difficult to locate. Sometimes such slivers of land are still owned by the Development company that built the residential estate many years ago but are no longer trading. So the Land Registry facility falls short in these cases

How to Interrogate the Land Registry Website

One needs to register with your email address as the “**Username**” and then followed by a “**Password**”. Then one can “**login**”

Documents Available

The Title Register 1] Who owns the property and the land it sits on 2] Price paid if since April 2000 3] Details of any **Rights of Way** or **Restrictions of Land Use**. The charge for the information is £3. Payment online and the data is emailed back almost instantly! Additionally, the **Title Plan** is also available for £3. Please note that although the boundary will be indicated on the plan, it is not necessarily accurate in terms of a legal statement

There are two ways to locate a property

By entering an **Address** – And then ordering the documents required. Or by **Map** search (Aerial land locator) and zooming in to locate the property – Then click **Find properties ON** and order the documents as required

Although usually not the case, even slivers/strips of land without property on them can be Registered and thus its ownership can be established. One would need to use the **Map** search facility for that

43] There is no such thing as No Man’s Land - Felling & Trimming Trees on Unregistered Land in the Urban Environment - Adverse Possession (Squatters Rights)

There is no such thing as **No Man’s Land** – All land is owned by somebody, an individual, an authority or the Crown. *Only the true owner of a parcel of land has the right to trim or fell trees, non-TPO or TPO designated on his land but the TPO tree would need a Planning Application to fell it.* To hire a Tree Surgeon to undertake tree work without the owner’s permission would be illegal. And both the client and Tree Surgeon would be culpable in a court of law

Local Authorities are sometimes reluctant to act even in cases where **H&S** aspects are suspected on unregistered land. Where possible, the owner of the land should be sort and it is the owner's responsibility to take action. Where the owner of the tree cannot be found, even after resorting to the HM Land Registry facility, then the issue should be initially referred to the Local Authority even though they may be reluctant to pursue the issue as they have other issues that take priority. Resorting to a lawyer is beyond the scope of this Guide

Problems that can occur when eventually finding the identity of the land owner

The owner may then be motivated to do something with the land. An example occurred on the Queen's Park estate where a sliver of land was found to belong to the house builder Taylor Wimpey – Land that was left over after they had completed the housing estate. So the land was put up for auction. Post auction, the new owner of the sliver of land then legally erected a fence between the path and the rear gardens and offered the garden owners to purchase an extra length of garden. Thus the vegetated strip, so good for wildlife, was broken up

Adverse Possession (Squatters Rights)

There could be a good case that one could claim "**adverse possession**" (Squatter's Rights) after 12 years has elapsed without the owner maintaining the land or claiming the land as their own. And if a third party has maintained the land throughout then that probably gives good cause to make a claim. But that will be a matter for a lawyer or a Land Surveyor to advise

44] Mediation – Tree and Border Disputes

Where disputes occur between neighbours concerning a potential tree and or border problem, there is advice on how to initially approach the problem without attending a solicitor's practice. The solicitor may initially refer one to a professional **Mediator** rather than the expense of taking the case to court. The **Mediator** does not take sides but works to find a solution and agreement between the two disputing parties. A solicitor would be obliged to take the side of his client thus compromising an amenable outcome. And the costs will be significantly higher

Refusal by one party to agree to a **Mediation** exercise will go against them (in terms of costs awarded) should the dispute go to a court of law and they lose

Neighbourly disputes can be vitriolic, fractious and the smaller the problem the more disputatious it can get. A "*cooling off*" period can have a calming effect giving time for both parties to reflect. A **Mediator** will speak to both parties together and then interview each separately before suggesting a way forward. The **Mediator** does not pass judgement or take sides and **Mediator** fees are considerably less than hiring a solicitor that may result in a court case

The classic dispute is where tree branches overhang a neighbour's garden and arguments ensue. But there are other disputatious problems with trees that occur

*Gregory Hunt of Hunt ADR – A local registered and professional **Mediation and Arbitration company** – Is available in Billericay to advise on these matters – However, there is a professional fee involved for this service*

45] Where Precisely is the Border Between Two Properties?

Where a tree appears to be on a border between two properties it is not always easy to which side it belongs. The House Deeds are never that accurate with the information and even interrogating the online **Land Registry** facility will not necessarily solve the problem. There could be a difference of half a metre either way as the plan drawing in the Deeds is usually of a small scale. Hiring (at considerable expense) a **Land Surveyor**, who will look at all the available evidence, will determine the border by agreeing with the two parties concerned signing an agreement. So it is best to initially start discussions with the neighbour and see if an agreement can be reached without recourse to a **Mediator, Land Surveyor or a lawyer**. It is advised that if a border hedge is to be replaced by a fence or brick wall then at least a verbal agreement needs to be reached between the two neighbours as to its precise position

46] The Root Cause of Subsidence in Buildings?

The following is an overview of the complex subject of subsidence in buildings. It's the preserve of specialists involving **structural engineers** and **Insurance assessors**. Each case is investigated on its own specific circumstances that can occur to each property. It is a blend of scientific investigation and experience by the professionals



Subsidence in buildings can be caused by a clay substrata that is subject to expansion and shrinkage and in periods of extended drought this can lead to movement. Tree roots nearby sucking up significant quantities of water can aggravate the situation

Billericay is largely built on shrinkable clay soil that is subject to these shrinkage and expansion problems. However, serious subsidence is not now commonplace in Billericay but cases do occur. See a "**Brief History**" below

As a rule of thumb, a tree will not present a risk of subsidence if it is a distance from a structure equal to or more than its height but exceptions occur. Nearby oaks with their high water uptake can be the villain of the piece

The lifting of brick paving near to a tree is not a sign of subsidence but more an inconvenience caused by surface roots – Careful repair to the paving and mindful of the tree's surface roots will solve the problem

Oak, Willow, Poplar, Ash and conifers including *leylandii* are the species most often associated with house subsidence. Also Willow and Poplar are known to invade drains and grow long roots within them blocking them. Leaking drains can cause voids in the soil and thus lead to subsidence problems

Except for Oak, the other tree species are relatively quick growing but all have significant water uptake that can affect the hydrology of the surrounding soil – Typically associated with subsidence

It is often the case that when a house is built, the gardens are landscaped and young trees are planted nearby. But as many years pass the trees become mature and their roots spread out and can then present potential structural problems. The roots themselves are not the physical cause of subsidence but it's their significant water uptake during their main growing period in the spring and summer that is the cause

This changes the dynamics of the surrounding soil that can then trigger subsidence. Mature oak trees can extract between 50 to 180 gallons of water per day! It's this action, combined with drought conditions and then shrinkage of the substrata, that can trigger subsidence but predicting it is crystal ball territory! An unknown factor is to know the state of the existing foundations and how well they were constructed

The advice from the professionals is that once a tree has been identified as a potential threat, consideration has to be given as to whether it is best trim back the tree's canopy and sides thus slowing the spread of its roots and water uptake, or more drastically to completely remove the tree

The lesson here is that the knee-jerk action of removing a tree could trigger subsidence as the clay (or substrata) could move into the voids created by the rotting roots and thus trigger subsidence. Although the roots of tree species that have resin-based sap (conifers etc.) are less likely to decompose and thus the surrounding soil is likely to remain stable

A new structure built in close proximity to a tree that is required to remain may require a sub-surface engineering brick root-barrier built at specialist's advice; an expensive operation

When Subsidence Occurs

The signs are when cracks in walls appear and doors, external and internal, are sticking. The way forward is to contact one's house insurance company and seek advice. Structural engineers are called in and they assess

the ongoing damage by attaching **brittle tell-tale tiles** across the cracks. These are monitored over many months to assess if movement is still occurring and if so, is there a tree on the same side as to where the cracking is occurring? Meanwhile trial pits are dug in several locations around the property to assess the construction and depth of the existing foundations plus the soil's chemical content and its hydrology. In serious cases the house may need to be underpinned, a highly labour intensive and a very expensive structural engineering operation involving a substantial claim on the house insurance. In serious cases, the occupants of the property need to move out until the underpinning is completed

There are three main engineering solutions that can be adopted according to the site conditions involved. Mass concrete footings under the existing footings / Reinforced concrete beam and base / Driven mini-piles. Each solution has its particular way of sequentially supporting the load bearing walls above whilst the underpin is progressed below – All in all a very expensive engineering process and preferably carried out via the house insurance cover.

There is Royal Horticultural Society (RHS) Advice on Trees and Their Effect on Buildings on:-
<https://www.rhs.org.uk/plants/types/trees/near-buildings>

A Brief Local History

Houses in Billericay had a spate of subsidence problems when a severe drought back in the mid-seventies occurred. A local structural engineering firm rose to the challenge and invented a product called **Clayboard**; a 75mm thick eggbox-like crushable material that is placed on the external face of new build mass concrete house footings to allow for the movement of the clay substrata. Around that time the **British Standard's Building Code** was amended and further recommended that mass concrete footings were taken down to 150mm below where the clay gave way to a firm strata. This could result in concrete footings being several metres deep and also applies to conservatory footings!

This solved the risk of subsidence for new build whilst those existing houses not affected by subsidence in the mid-seventies were probably immune anyway. But tree growth in close proximity of a structure since that time may cause subsidence in the present day

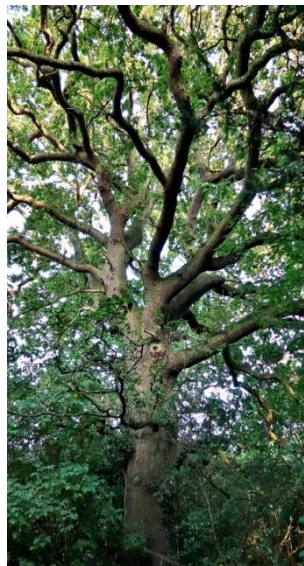
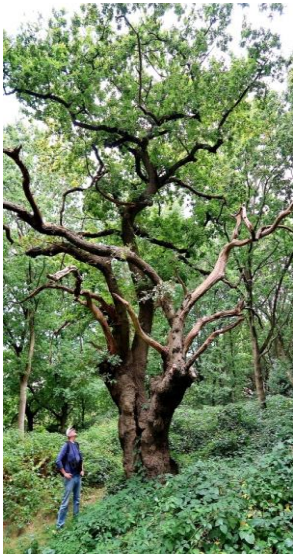
The recent prolonged drought in August of 2022 may have once again triggered subsidence problems in the town

Medieval Building Construction

Prior to modern building techniques, stone and brick built structures and wooden houses were often built on horizontal log foundations. Most of these structures would have subsequently undergone some form of subsidence but the dynamics of the timber movement would have been spread evenly around the periphery resulting in a stable structure but resulting in sloping floors! However, cathedral foundations were usually taken down to firm substrata / bedrock (but notable exceptions occur!) predating the wisdom on the modern Building Codes! In those days, the architect and the structural engineer were one and the same person



47] Some Classic Trees in Billericay – A Photographic Record







Read top left as number [1] – Then follow the sequence line by line down the page

- 1] *Off Perry Street – A Giant Oak*
- 2] *Woburn Place – Queen’s Park Estate – Giant Oak*
- 3] *Lake Meadows – “Umbrella oak”*
- 4] *On farmland adjacent Scrub Rise southwest Billerica – Standalone oak*
- 5] *Fairfield Rise – 4 Ancient Pedunculate Oaks – Signifying an historical boundary*
- 6] *Mill Meadows – A line of characterful oaks – Signifying an historical boundary*
- 7] *Mill Meadows – Veteran Oak*
- 8] *Woodland – Queen’s Park Country Park – Ancient Oak*
- 9] *Gray’s Wood, East Billerica – Ancient Oak*
- 10] *Kennel Lane – Giant Oak*
- 11] *Lake Meadows – “Phoenix” oak*
- 12] *Wild Service Tree – Norsey Road*
- 13] *Norsey Wood – Common Beech*
- 14] *Norsey Wood – Sweet Chestnut*
- 15] *Southend Road – Adjacent Mill Meadows – Cedar of Lebanon*
- 16] *Pollarded Sycamores – Chapel Street – Churchyard*
- 17] *Adjacent the Waitrose car park entrance – Holm Oak*
- 18] *La Toscana- Old Barn Court – Walnut*
- 19] *Frith Wood Lane – Veteran coppiced hornbeam and now ornamentally shaped*
- 20] *Tye Common Road, Junction with the London Road – Araucaria – Monkey Puzzle Tree*
- 21] *Norsey Road – American Tulip Tree*
- 22] *Chapel Mews – Chinese Dawn Redwood – One of a grove*
- 23] *American Sierra Redwood*

48] Map of Ancient Woodlands in the Billericay Local Area
Data Collated from the Defra & Natural England Ancient Woodland Register



Legend

1] Little Bishop's Wood / **2]** Great Bishop's Wood / **3]** Forty Acre Plantation / **4]** Norsey Wood / **5]** Meepshole Wood / **6]** Barrenleys Wood / **7a]** Poplar Plantation on Ancient Woodland / **7b]** Devil's Wood / Crays Wood / **9]** Frith Wood / **10]** Blunts Wall / **11]** James Wood

Ancient Woodland

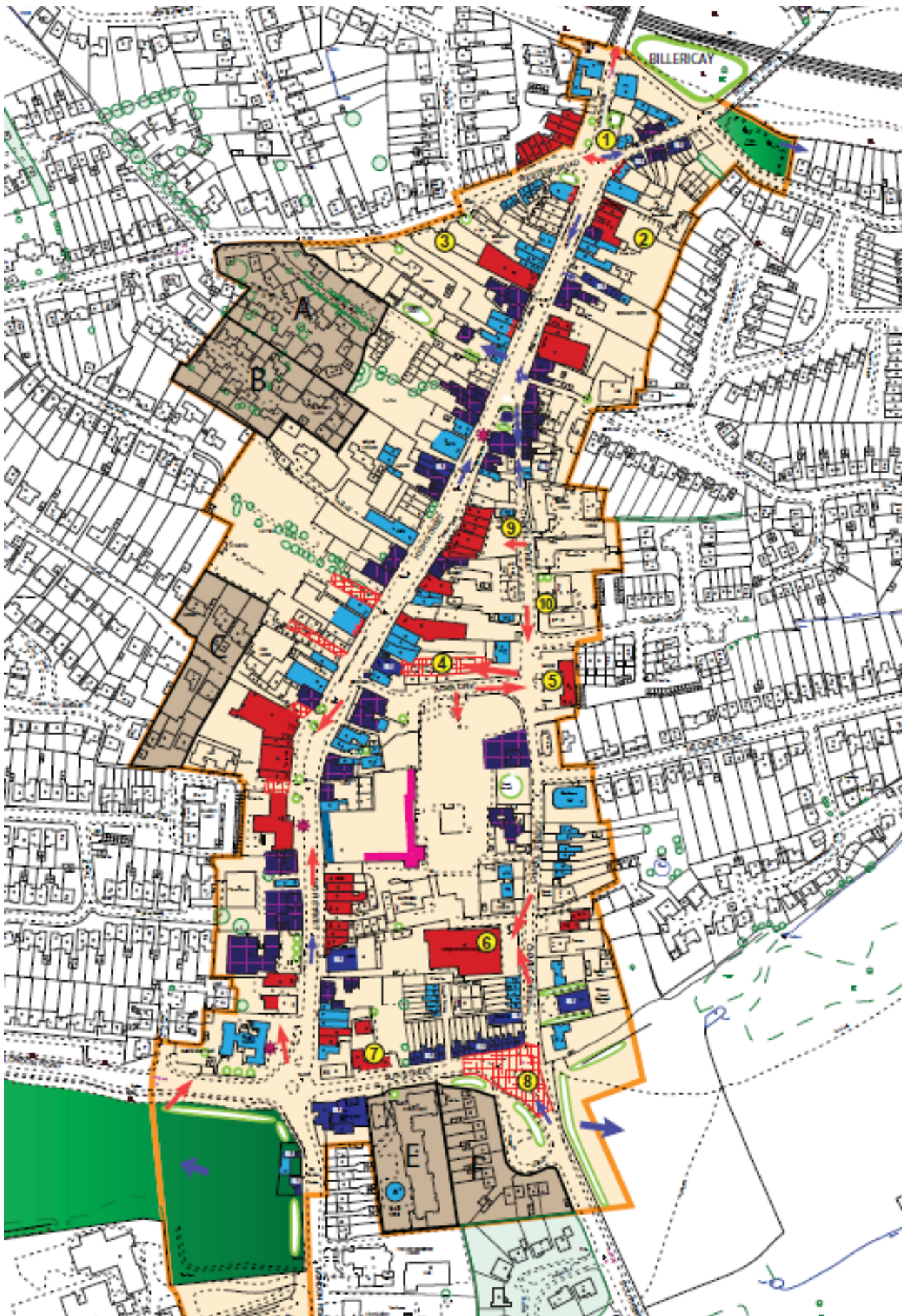
Definition – *Woodland that has been in continuous existence since 1600 AD.* This indicates that the wood probably occurred naturally as woods were rarely planted before that date. Its status is not affected by a coppicing regime as the rootstock will be in undisturbed soil and themselves ancient; so some ancient woodland may not contain many old trees in a visual sense. Many ancient woodlands would not exist today had they not been a valuable source of wood for local craftsmen and their families over the centuries and thus were protected for providing livelihoods by the action of coppicing.

In the early days, wildlife biodiversity was a by-product of coppicing for livelihoods, whereas today coppicing is directly carried out to promote wildlife biodiversity and to keep alive the ancient skills of woodcraft. The old adage:- **A wood that pays is a wood that stays** still rings true. Many species of wildlife are unique to ancient woodland and thus occur in no other habitat. *Alarmingly, the **HS2 rail link**, between London, Liverpool and Leeds, threatens 108 ancient woodlands with loss or damage*

Area **7a** refers to woodland officially designated as **Plantations on Ancient Woodland (PAWS)**. 20th century thinking due to the European wars was to grow our own timber so we could rely less on foreign imports. So many **Ancient Woodlands**, or parts of, were felled and ploughed to make way for plantations of quick growing tree species typically Poplar, Spruce, Fir and Larch

49] Map of the Billericay High Street Conservation Area

A **Conservation Area** primarily refers to the historical significance of its buildings and architecture but also protects the trees contained within its border. To apply for permission to undertake tree work or felling within the zone, the **Basildon Borough Council** Planning department requires six weeks advance notice



50] Collaborative Tree & Hedge Planting Projects Mainly led by BTW's Nathan Hume and in Cooperation with the ECC, BBC, EWT & Local Organizations



Planting Sites

All saplings (native whips) unless otherwise stated

- 1 = Cowbridge Wood:** Completed 03/2019 / No. of plants c.600 / In partnership with the EWT & WT
- 2 = Mountnessing Farm:** Completed 02/2020 / No. of plants c.200 / In partnership with the EWT & WT
- 3 = Mountnessing Roadside:** Completed 02/2020 / No. of plants 300 / Partnership with the EWT & WT
- 4A = Lake Meadows:** Completed 12/2019 / 7 Elm standards / In partnership with the LCB & BTW
- 4B = Matt's Farm:** Completed Nov 2012 / No. of plants c.140. An EWT LL project
- 5, 6 & 7 = Sun Corner (Queen Elizabeth 11 Field):** Three separate planting projects of c.150 plants o/a Commenced 01/2015. In partnership with the RT, EWT & TCV
- 8 = South Green Village Green:** Completed 02/2021 / 2 Maple standards / An SGVC & BTW partnership
- 9 = Great Burstead Church:** Completed 01/2022 / 2 standard Pilgrim Apple Trees (Given sanctuary after being vandalized at the Festival Gardens) / Funded by the BTC in partnership with the BTW
- 10 & 11 = Barleylands:** An ongoing project – Commenced 02/2016. Total no. of plants c.1,500 / In partnership with the EWT, WT and input from the NWS
- 12 = The Southend Road Roadside:** Completed 11/2015 / No. of plants 300 / In partnership with the EWT
- 13 = Noak Hill Road Roadside:** Completed 01/2012 / No. of plants c.2,000 along 1,225 metres of verge / In partnership with the ECC, EWT with help from the TCS and the Waitrose volunteers
- 14 = The "Forest of Life" at Crays Hill:** Completed 03/2017 / A mega-Woodland creation of c.2,100 trees and an apple orchard of c.30 standard trees – All contractor planted – Funded by a Veolia grant & co-designed by the BBC & Nathan with much enthusiasm and help from the children of the **Crays Hill Primary School**. The children named the wood via a competition!
- 15 = The Wickford Memorial Park Extension (Beauchamps Road):** A mega-tree BBC planting project

co-designed by the BBC & Nathan involving Woodland creation, a mixed fruit orchard of 200 trees in 02/2023, multiple pond creation and a wildflower meadow. A woodland has been created with c.3,500 young native trees – Planted by contractors from 03/2021 onwards

- 16 = **Brightside School:** Completed 01/2022 / 18 native “whips” involving the school children / BTW
- 17 = **Buttsbury Church Ingatestone:** Completed 11/2022 / “Standard” Pear tree planted to commemorate St Botolph preaching in the churchyard in the 7th century
- 18 = **Pleasant Drive Recreation Area Billericay:** Completed 07/12/2022 / 400 native plants planted by the BTW volunteers / Funded by the ECC & BBC
- 19 = **Lake Meadows:** Completed 08/12/2022 / 400 native plants planted by volunteers from the FoLM and the BTW / Funded by the ECC & BBC

Notes:- c.530 “refugee” sapling oak trees were rescued from the controversial **HS2 railway** project and placed in the Norsey Wood Tree Nursery for distribution during future planting projects. A project of 8 “standard” sized cherry trees at Sun Corner (The Queen Elizabeth 11 Field) was funded by Bennetts Funeral Directors but has unfortunately suffered successive bouts of vandalism

Total Number of Tree & Hedge Plants = c.11.850 (As of March 2023) .
Further planting projects are ongoing.

Legend – Partnerships:-

BBC = Basildon Borough Council / **BTC** = Billericay Town Council / **ECC** = Essex County Council / **EWT** = Essex Wildlife Trust / **BTW** = Billericay Tree Wardens / **FoLM** = Friends of Lake Meadows / **LCB** = Lions Club of Billericay / **LL** = Living Landscapes (EWT) **NWS** = Norsey Wood Society / **RT** = Round Table / **SGVC** South Green Village Council / **TCS** = The Community Service / **W** = Waitrose

With thanks to Nathan Hume of S. H. Goss & Co. Ltd of Billericay & Neil Sumner of EWT’s Living Landscapes

Other than the ECC & BBC planting projects, most plants were supplied free by the Woodland Trust under their Community Projects scheme. And thanks to the many volunteers for their invaluable help
[Data compiled by JHS from an idea by BTW member Saskia Dahl-Meadows]



Barleylands – Hedge Planting



Mountnessing Farm – The Volunteers



Lake Meadows – Circle of 7 Elms planted



Pleasant Drive recreational area

51] If You Go Down to the Woods Today – It May Not be There!



Although in itself not an illegal act, the felling of a large area of ancient woodland in a private garden in early 2022 that effectively formed part of Norsey Wood (NW) was a thoughtless and irresponsible act. There had been no consultation with the Norsey Wood Society (NWS) who have voluntarily partnered and shared the Wood's management duties with our Basildon Council since the mid-1970s to maintain the Wood as a flagship Nature Reserve (with SSSI status) and to provide a popular public amenity. Anti-wildlife gap-site Developers recognize that

houses built on the periphery of the Wood (and in this case within it) command high prices for such a prestigious location but fail to respect or give back to the environment. The Billericay Tree Wardens (BTW) have crossed swords with such moneymen before who *“push the envelope”* to maximize their profit. *The BTW are wise to it – In the past there has been no one to highlight this money-orientated destructive behaviour – There is now.*

What had further added to the insult of the situation was that when the BTW had been on site earlier, we had been assured that the ancient woodland in the garden would **NOT** be felled. A week later, and almost as if overnight, over a third of an acre of mature trees were gone and the root stock groundout. – Clearly coppicing had not been on the agenda. The photograph *“An Open Sky and Woodchips”!* depicts the scar (and all too clearly shown on Google Maps if not from space!) has now gone into woodland mythology.

So what was to be done? Our Local Authority (LA), powerless in terms of the law, have expressed their displeasure by not granting the Developer Planning Permission until he carries out a reparation exercise – That is by replanting *“heavy standard”* sized native trees as replacements where the original trees had been. Presumably these would then be designated with a Woodland TPO with a long-term management plan. The Forestry Commission had *“considered a prosecution”* for more than a year and even MP John Baron had pursued a decision from them but in the end all to no avail.

The LA also responded to our request that the neighbouring seven long gardens, still blessed with their intact Ancient Woodland, were all designated with Woodland TPOs; collectively three acres in extent. An expensive process involving a large amount of Tree Officers time that requires detailed site surveys backed up by much behind the scenes legal work and historical searches.

As a knee-jerk reaction, Gap-site Developers (who are often masters of the Anglo-Saxon invective) will without hesitation fell **ALL** non-TPO trees and vegetation on a building site and are reluctant to temporarily protect TPO trees with root and trunk protection from damaging site operations as per they are legally bound to do.

All Developers are soon to be subject to a new government law of Biodiversity Net Gain (BNG) whereby it is beholden of them to provide their sites with a 10% net gain of wildlife than the site originally had. However, the Norsey Road development site had suffered a traumatic Biodiversity Net Loss!

Back in 2019 a gap-site Developer excelled himself at a property known as “Minstead” along the Deerbank when he oversailed the NW woodland boundary by several metres (and trimmed back woodland trees without permission) but at the time it was considered too small a violation to warrant successful legal action. An example of where the *“envelope had been successfully pushed”!*

The BTW is a subgroup of the Billericay Town Council (BTC) and together we have thanked our LA, and the various well-meaning individuals for their sympathetic and helpful advice to this blatant and unwarranted attack on our town's tree heritage.

Please note that the larger mainstream Development companies normally conduct themselves in a professional manner and are not to be confused with the smaller and more guileful gap-site Developer that the above article refers to.

Article by the Billericay Tree Wardens (BTW) who are a subgroup of the Billericay Town Council (BTC)

52] The Craft and Art of Woodturning - Kyle McGill

I'm preaching to the converted when I say that trees are fascinating, unique, and can have a personality all of their own. Part of what I enjoy doing is managing trees through different stages of their life, for the benefit of the local ecology as well as for the tree. I do this through a number of mediums, one of which is to join the work party at **Mill Meadows Nature Reserve**, where I have a keen interest in ensuring that trees are considered and managed effectively on the reserve.



Dead Hedge



The Vista



Freshly Cut

Now, that all sounds great and what everyone should be aspiring to do, right? Well, I must confess to a conflict of interest. I have a hobby which has a need for wood - Woodturning. I try to manage this dichotomy with the best of intentions for the trees that I work with; I want to ensure that if they are to be felled, coppiced, pollarded or any other sort of management, that the by-product is used in a beneficial way. This can be by dead hedging, building hibernacula or 'bug hotels', or more pertinent to this article, having resources that I can feed my woodpile stock with. This way, I know that the wood I use is of a wider benefit to the tree or area. I think there is something quite wonderful by knowing where the wood I am working with has come from – A connection with time and place. I use "*what3words*" to pinpoint the tree - Some people have told me they then visit the area where the wood comes from. For the tree above it is in 'Hilly Fields' in Mill Meadows and the three words are "*///sleeps.blues.apple*" should you wish to visit it

In the instance of this oak tree, we decided to remove a limb from the tree. A number of limbs have been removed over many years, the evidence of which is seen in the trunk. We decided to do this to better the shape of the tree and to avoid any imbalance. A pleasant side effect being that it improved the vista over the meadows. I encourage you to take a moment and sit on the bench situated there. It's a wonderful scene

Once we took this limb from the tree (probably a cross section of around 150mm at the cut mark), I decided that I'd like some of this oak for my woodturning; the rest of the limb was destined to be part of a dead hedge. I chose a straight section about a meter long which I processed to be able to carry back home for storage over winter. The wood is "*green*" that means that it is freshly cut and retains water. This water evaporates over time which changes the shape of the wood. You'll see the effect of not giving the wood time to dry below

I was asked to write this article and thought that I'd use this piece of oak as it is local, and I wanted to try a new piece as a "*proof of concept*" which I regularly do. The first stage of turning wood is to get it round. Naturally, the wood straight from a tree will have various undulations and irregularities and to turn effectively one has to start the lathe slowly and bring the piece into a round state. I typically start with my biggest gouge tool called a spindle roughing gouge to take the bulk of the wood away until it is round



The Spindle Roughing Gouge



Creating a chucking point



The main shaping



Once the piece is round, I use various tools (a selection can be seen on the left) to carve the shape. **Woodturning** is a craft which uses different tools and cuts, but they are all based on three main techniques, which make the craft accessible and can be expanded and developed as needed. I could be accused and possibly fairly so, that I have an addiction for acquiring more specialist tools than is necessary; however there are six main tools that will see you through 95% of what you could want to do on the lathe

I'm usually most busy in the workshop in the lead up to Christmas where I make gifts and have friends who ask for various pieces, such as Christmas trees which are popular. My favourite pieces to make are baby rattles, which are lovely mementos and a heritage gift: however the mind is the limit when it comes to turning and I have made a wide variety of things such as bowls, vases, pens, wine stoppers, bottle openers, a hot air balloon, a lightsaber, wands and much more



Should anyone want to give woodturning a try, they are free to contact me via the BTW email address to give it a go, or I would encourage you to visit the **Thameside Turners** at the **Fold in Billericay** who meet on the 2nd Thursday of the month

This is a proof of concept piece, a Christmas tree candle stand. I quite like the idea, but I am sure that I could refine it further. The cracking comes from the oak drying too quickly when being indoors. This is not unexpected but alas, the topic of wood drying and warping is a story for another day!

53] The Day the Boys Went to Kew! – By John Smart

Spurred on by the recent television **Series 2** of **Kew Botanic Gardens** that had showcased its professional curators, volunteers and its amazing collection of trees and plants from around the world, **Nathan, Neil** and **John** were keen to visit. So on Saturday 24th September we set off with **Nathan** at the wheel to drive to **Kew Gardens**. Fortunately a sophisticated aspect of the vehicles Satnav identified alternative routes to avoid the several accidents and gridlocks experienced on the way!

Upon arriving we made for the **Palm House** completed in 1848 with its 16,000 panes of glass and then to experience the magic of a rain forest. Our camera lenses took a while to stop misting up in the hot and humid environment! A habitat where the Chinese Water Dragon "*Techno*" hangs out near to the papaya fruit plant. "*Techno*" offers his services by eating the cockroaches and bugs that can gain a hold in the Garden's glasshouses!



The variety of tropical plants, their leaf shape, trunk patterning, some in flower and fruiting can become overwhelming and leaves a lasting impression of their diversity. There is a species of bamboo in the **Palm House** that grows so tall that it is in danger of cracking one of the glass roof panels! Some of the plants that are on exhibit are species that are at risk of becoming extinct in their native home

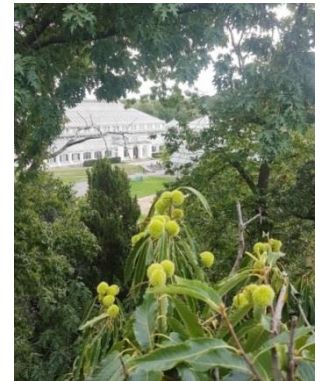


From there we wandered over to the nearby **Waterlily House**, a purpose built glass structure completed in 1852. And side by side are examples of the **Giant Waterlily** that grow in the lakes and backwaters of the **Amazon Basin**. They are capable of growing to 2.5metres in diameter! There is a famous early photograph of a young girl and another of a baby placed on a waterlily at Kew which today would probably evoke critical comments from the Social Services!

The **Princess of Wales Conservatory** was the next port of call. **Princess Diana** opened the conservatory in 1987 but the glasshouse is actually named after **Princess Augusta**, mother of **George III**, who founded the Gardens in 1759. It is a very complex glass structure specifically designed to house **ten climatic zones** with computer controlled vents to maintain the temperature that each zone requires. Fascinating plant families are represented such as Venus flytrap, pitcher plants, orchids, cacti and bromeliads and there are also more giant waterlilies! We suspect that cockroaches are added to the carnivorous pitcher plants to provide them with a meal! Bon appétit! This conservatory would require more visits to fully explore what it has to offer.



The 18 metre high **Treetop Walkway** is an intriguing experience where one can walk through a woodland's leafy canopy. Breaks between the trees reveal the skyline of London. We were not deterred by the lift being out of action and resorted to the 118 steps to reach the top! The structure is designed to slightly sway in windy



conditions! In the photographs above the renovated **Victorian built Temperate House** can be seen that was opened in 1863

There is a 17 metre high contemporary art installation in the Gardens called **The Hive**; constructed out of 170,000 (one hundred and seventy thousand!) aluminium parts with 1,000 LED lights. It had been an installation that was originally shown at the UK pavilion for the highly controversial **2015 Milan Expo**. Not surprisingly, it took four months to reconstruct! In the background there is music that electronically responds



to a beehive situated in the wildflower meadow nearby. All in the key of "C", the key that bees buzz at! It is as a symphony composed by the vibrations of bees and the LED lights flicker to the beat! The installation is



a reminder of the threat that bees and our food security face today. The photograph was taken looking vertically

The stunningly designed and spacious refurbished **Victorian Temperate House** was partially closed when we visited but is home to c.1,500 species of plants from Africa, Australia, New Zealand, the Americas, Asia and the Pacific Islands. This structure is a cathedral of wrought-iron and glass to the botanic world! It is twice the size in area of the **Palm House**. A plant collection on a scale that would require a further visit or two to do it justice!



We went on to visit the **Great Pagoda** with its eighty refashioned and beautiful brightly painted gargoyles and then onto **Kew Palace** built in the seventeenth century illustrated left in the background where the reclusive **King George 111** was educated and lived in during the eighteenth century. Guides dressed in period costume were on hand to describe what life in the royal household would have been like

Whilst strolling between these highlights we often stopped to admire the various mature specimen trees on either side of the flower-lined

wide avenues. The identity of many, had they not been labelled, would have been a mystery. There is a **Cedar Avenue** and an **Oak Avenue** with mature specimen tree species from various parts of the temperate world. An added entertainment was the many highly vocal and mobile **Rose-ringed Parakeets** raiding the fruits and seedpods that the trees had to offer. They were as bright green flashes dashing between the trees! They have become used to the stream of human visitors and on one occasion landed undeterred and highly vocal in the canopy right above us, feeding on the fruits of an exotic tree

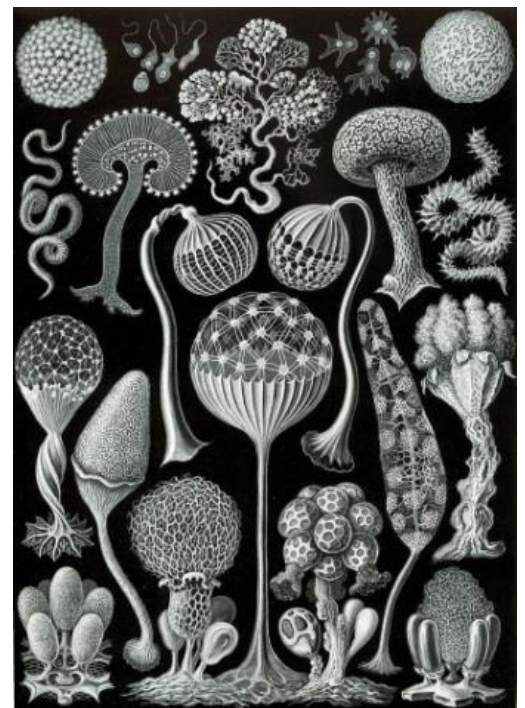


No visit to Kew Gardens should miss out on the pilgrimage to see the **Pagoda tree** planted in 1762; a tree of Chinese origin. With its propped branches, brick strengthened trunk, its amazing blossom and its fissured bark patterning, is the very essence of **arboriculture**. Seen here in the photograph below with **Neil** left and **Nathan** right looking on. Sadly, there was a much younger but mature specimen in a Billericay front garden down the Tye Common Road that failed to qualify for a TPO and was felled soon afterwards by the property owner who failed to realize the tree's importance to our town's tree heritage

After a welcome visit to the café, we explored the gift shop and found that the book section, if that is one of your interests, is akin to literally entering a literary heaven! There were books on trees, plants, art illustration and how plants have fashioned human culture throughout the centuries plus many other kindred subjects. Not only were plants and seeds for sale but so were **Kew beers**, **Kew honey**, jams, scented herbal soaps and all manner of well-designed merchandize! Self-discipline with respect the plastic was required! London has always been a draw for foreign tourists and Kew on that day was no exception. Although a long drive home, thankfully the Satnav with its updates directed us again through the worst of the daily gridlocks!

54] "Intelligence" Creeps Among a Woodland's Leaf Litter! – By John Smart

Welcome to the world of slime moulds! A mysterious life form with a unique lifestyle found on the woodland floor and under the bark of fallen deadwood. **Biologists** and **mycologists** know what it isn't but have not decided what it is as it does not fit into the recognized kingdoms of flora, fungi or lichen! For convenience they classify it as a **Mycetozoa**, a minute single cell that feeds on bacteria, yeast and fungi in the decomposing leaf litter. Here the magic of nature is demonstrated for when the food runs short the single cells have the ability to clump together and creep as a single entity a few feet away to a better hunting ground. Large examples can be a foot or two across and come in a variety of species, textures and colours. When the food runs short again they produce little fruiting bodies that release an incomprehensible number of airborne spore (similar to fungi) as the four phase complex life cycle recommences. A fundamental difference between fungi and slime mould is that the former's fruit body grows out of its host and the latter grows on its host. There are c.900 known species of slime mould throughout the world but that is surely a gross underestimation as they have been so little studied. Some shine in the night via iridescence!



The artwork upper right:- Fruiting Mycetoza under the microscope – An illustration from Ernst Haeckel’s “Art Forms in Nature” - 1904. The hidden world of beauty revealed under the microscope!

Researchers have discovered that slime mould exhibits what we would describe as intelligence and with memory that and can even anticipate events. On a horizontal plate of glass some tempting (to slime mould!) oat flakes were placed to represent Tokyo and 36 conurbations that surround it. Then a yellow coloured net form of slime mould species was introduced. The mould initially covered the whole plate but then withdrew revealing the main connections between the cities represented by the oak flakes. This more or less duplicated the near-optimal rail network that the **Japanese city planners** had previously evolved between **Tokyo** and its satellite cities. Other bizarre experiments have been carried out with the similar result that such a primitive life form has demonstrated what appears to be an uncanny cleverness. Whatever is occurring, it appears that it is duplicating the process of a problem solving brain. But there is no central nervous system so it must be transmitting messages and instructions to itself along its network of interconnecting and pulsating veins. It has duplicated the action of “*thought*” as a survival strategy

As with fungi, unless one actively looks for them, slime mould goes unnoticed. There is an intriguing book on the subject “**The Creeping Garden**” by **Jaspar Sharp & Tim Grabham (2015)**



Left:- *Physarum polycephalum* - The pathfinder slime mould used in behavioural experiments.

Right:- An example of a slime mould recently found in Norsey Wood. The white sphere was about half an inch in diameter in width. Image courtesy of Keith Freitag (NWS)

55] Miscellaneous & Some Tree Facts

Tree Species that are efficient at improving air quality – (From a technical paper by the Forestry Commission)

Ash / Common Alder / Field Maple / Larch / Norway Maple / Scots Pine and Silver Birch

Tree Species that are Efficient at Storing Carbon:-

Crack Willow / Goat Willow / Larch / Lawson Cypress / Leyland Cypress / Poplar / Silver Birch and White Willow

Tree Species that are Efficient in Combating the ‘Urban Heat Island Effect’

Robinia (Black Locust) and Scots Pine plus other small-leaved tree species

The leaves of a tree rotate throughout the day to track the sun to achieve maximum photosynthesis

A single mature tree produces approximately 260 pounds of oxygen a year enough to support two people

Roadside trees can help reduce nearby indoor pollution by more than 50%

A mature tree removes almost 70 times more pollution than a newly planted tree

A single mature English Oak tree can play host to c.280 insect species and more

56] Did You Know?

Did You Know?

Incredible as it seems, **NASA** and astronomers have been using slime mould simulations to explore the mysteries of **Dark Matter** that supposedly holds the universe together. WW2 and the Pacific War apart, **Japanese Emperor Hirohito** (1901 – 1989) was the un-credited author of a book on slime moulds published in 1935. Earlier, the **Lister family** were pioneers of slime mould biology in the late 19th century and an interest of theirs in antiseptic surgery led to the mouthwash product “Listerine”. The strangeness continues as there is even a **Slime Mould Fly!**

Did You Know?

The **Tree of Heaven**, a native of **Northern China**, can grow in harsh conditions where other tree species cannot survive. It's the only tree that can grow out of cement! It can grow to 100ft tall and makes a fine standalone specimen with an attractively patterned bark. But the invasive habit of its seeds germinating everywhere like the action of rampant weeds makes it unpopular outside of our arboretums!

Did You Know?

The **Great Banyan** tree of **Kolkata** in India is sacred to the **Hindus** and is a strangler fig. A bird or monkey will drop a fertilizer encased banyan seed in the upper branches of a tree that will then send down aerial roots. They eventually thicken and become props as the original support tree is strangled and dies. The fig tree spreads out sideways into an enormous size. It's a 488 metre walk around the **Kolkata tree** as it covers an area of 4.7 acres and is propped by over several thousand trunks! The **Great Banyan** tree is 24.5 metres high at its tallest point

Caveat:- The UK's native ivy is neither a "*strangler*" nor is it "*parasitic*" but only grows on a tree for support – It's very good for birds to nest and roost in and provides them autumn berries. Ivy is very much maligned as a plant but is part of our native flora

Did You know?

Conifer trees and deciduous trees planted wisely about our homes keep us cooler in the summer and warmer in the winter. Acting as shade and as a windbreak respectively. Estate Agents report that such properties return a higher market value as the trees add a desirable aspect to a property. But mature trees too near a property can cause subsidence damage!

Did You know?

The **Durian tree** of Malaysia produces fruits that can weigh as much as 13lbs each! A fruit highly valued in its home country but is viewed with caution by others. Its taste and smell are at opposite ends of the spectrum – Tasting as delicious butter-like custard highly flavoured with almonds that contrasts with its smell of the lavatory! Needless to say it is an acquired taste! Local restaurants and International Airlines ban it!

Did You Know?

The leaves of a tree will rotate during the day to track the sun so to maximize the photosynthesis process. This is why most tree leaves have stalks to allow them to rotate. And those in the canopy below in the shade will rotate to maximize whatever light there is. The **Beatles** wrote an apt song "**I'll Follow the Sun**"!

Did You Know?

From the **Guinness Book of Records** – The largest living organism on the planet is a **Honey Fungus**. A killer of various species of tree. A single connected and gigantic specimen has been discovered in the **Malheur National Forest** in Michigan in the US. The majority of it lay underground in the form of a root-like string and only the fungus fruiting body appears on the side and base of trees. It's estimated to cover 2,835 acres (1350 soccer fields!) and estimated to weigh 21,250 tons! Its bacteria glows at night – **Fungi fairy lights!**

Did You know?

The tall tree-like and deep rooted **Ginkgo biloba** tree of China and Japan is technically a fern. It has not changed since prehistoric animals browsed on its branches and leaves many a millennia ago. Six **Ginkgo** trees near to the epicentre of the **Hiroshima atomic bomb explosion** on the 6th August of 1945 survived and soon made new shoots. Subsequent to the devastation the Japanese built shrines about them as they represent an indestructible life-force in the world and are now a symbol of peace. Confusion! The name can be spelt either **Ginkgo** or **Gingko**!

Did You Know?

Frankincense and **Myrrh**, the incense that the **Three Kings** brought to the **Bethlehem** stable, are from a fragrant resin extracted from trees that mainly grow in arid North Africa, Yemen and the island of **Socrota** in the Indian Ocean. Since the mists of time it has been transported for trade by camel trains across the deserts

and still is to this day. In Christian symbolism, **frankincense** can represent **Christ's sacrifice**. **Myrrh** is also an incense and was used in the embalming process by the ancients, especially the **Egyptians**

Did You Know?

The oldest living tree on Earth today is the **Bristlecone Pine** that grows very slowly high up in the **White Mountains** of California. It's estimated to be at least 4,800 years old! It has evolved to grow on poor soils in rocky locations at high altitude and is tortured by freezing temperatures and high winds. The tree is fissured, cracked, gnarled and appears dead but in spring throws forth small green needle shoots and exquisite deep blue cones. Its location is kept a secret to deter the souvenir hunters!

57] Some Tree Quotes!

*"The best time to plant a tree was twenty years ago – The next best time is now". **Anonymous***

*"Suburbia is where a Developer bulldozes out the trees, and then names the streets after them". **Bill Vaughan***

*"This oak tree and me, we are made of the same stuff". **Carl Sagan***

*"Trees are poems that Earth writes upon the sky". **Khalil Gibran***

*"To be without trees would, in a most literal way, to be without our roots". **Richard Mabey***

*"When one tugs at a single thing in Nature, we find it attached to the rest of the World". **John Muir***

*"Nowadays people know the price of everything and the value of nothing". **Oscar Wilde***

58] The Woody Shape of Time – By John Smart

1] Under a symphony of leaves
Dwell trees of all designs
In a profusion of form logged
By Linnaeus and his binomial DNA
Coursing through cell and vein alike
So lives a green city and its denizens!

2] Of bats-upside-down
Snuggly sharing their warmth
Insects in and on – Each to its niche
The ants, the aphids and the honeydew
That quiver and quaver in the breeze
Sweet fare for the canopy grazers!

3] Veteran trees and ancient forest
Where stag-headed oaks skyward point
Creaking with the centuries
Bear witness to a climate past
Running rings around a lifespan
In the woody shape of time!

4] The snuffling snouts of hogs
Source truffles for their troubles
Whilst nearby on the trunk of giants
Fruiting bodies in a prettiness of variety
Their brackets, their caps, their gills
A riot of mycelium has been on the run!

5] Picus pecking – Warblers gleaning!
Crossbills to the cones
Thrushes to the berries
Raucous corvids in their twiggy turrets!
Nurturing the feathered of tomorrow
All sway to the rhythm of the wind

6] Foliage that follows the arc of the sun!
Where stomata breathe a sigh
Trading carbon for air!
Trading sun for sugar!
As wandering samaras spin by
All under a symphony of leaves!

59] ACKNOWLEDGEMENTS

The BTW would like to take this opportunity to thank the Billericay Town Council for their helpful and practical support throughout

We would also like to thank the various professionals in the Basildon Borough Council who have advised the BTW as to various technical aspects with regards tree issues

And we thank the "Friends of the BTW" and those others who have advised on various technical issues and undertaken investigative enquiries on our behalf - They know who they are and we respect their anonymity

Thanks must go to Nathan Hume of S. H. Goss & Co. Ltd of Billericay for his tree planting expertise and liaising with the ECC and the BBC and co-designing some of the tree planting projects in our local area

The BTW is fortunate to have members that have specialist skills across a broad range of invaluable disciplines to bring to the table

[This Guide has been written & collated on behalf of the BTC & the BTW by John Smart]



*File: The Billericay Tree Wardens' Guide (Rev B)
[April 2024]*