CHALFONT St. PETER PARISH COUNCIL

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TREES AND GREEN SPACES POLICY

INTRODUCTION.

Trees have been seen simply as objects of an attractive street scene not as the serious work horses they are for the global benefit of all. Times have changed, traffic and hard build is growing at an ever-increasing rate. Climate Change is staring us in the face, flooding is becoming a regular costly tragedy. There is no longer any excuse for inaction, we now have a huge body of UK and Worldwide research which fully explains the vital role of trees and green cover in cleaning our air and sealing away carbon. The Chalfont St Peter Parish Council Tree and Open Spaces policy fully accepts our responsibility to increase and protect green cover and tree planting for the health and well-being of our community and planet.

1. BACKGROUND

Siting - Chalfont St Peter is one of the largest villages in the UK, and sits in the south east corner of Bucks, with a population of circa 13,000 residents. It is a valley bottom village, surrounded by hills, all of which drain down into the centre. The village is sited close to heavily air polluting highways, M25, M40, A413, and is under the flight paths of Heathrow, and Luton.

Features - The village includes three common areas, two being substantial with tree and shrub cover, and one far smaller. The Parish is managing these commons for biodiversity. There is also a Nature Reserve.

Character - Many roads in the village are characterized by green verges, green corners and larger areas of green at junctions.

Tree Planting Campaign - has increased the number of trees that are planted on verges and greens and this is consistent with the character of this village. This is ongoing.

Changed Land Use - The land use prior to the 1960s included large areas of Cherry Orchard and fields. Much of this was lost to development in the 1960s, replacing cherry orchards and fields with housing, this has greatly increased the burden on the drainage systems.

Failure to Replace Trees - Many roads were originally designed as tree lined. Lack of any replacement policy has left them with no trees, or ageing trees with a limited life span.

Increased Building - Increased levels of building have continued with significant extra housing, and with this even more hard cover of land.

Heavy Felling of Trees - Over the years heavy felling of trees in private gardens as well as on public space has led to some roads becoming almost unrecognizable from even 10 to 15 years ago due to the loss of large and significant trees.

Flooding Issue - The village has experienced frequent serious flooding events. This flooding has often breached the sewers, leading to contaminated flood water lying in the village for significant periods of time, affecting businesses and residents very negatively. These floods have in reports been linked to increasing hard land cover. This has caused water to run off into drains rather than be absorbed into soft land on the slopes around. This has overwhelmed drains in the valley bottom / village Centre.

Aquifers - The rainwater that would once have soaked into green, porous ground, then soaked down and filtered through the chalk so supplementing groundwater stocks in the chalk aquifers, will now often flow straight off the hard cover of roads and buildings into drains. From there it will ultimately end up in the sea and be lost to the aquifers, so reducing the natural top up mechanisms of chalk aquifers from which water supplies come.

Verges - Verges are a feature of the village. These provide a vital role as areas of soft land which can absorb run off water, so relieving pressure on the main drains. Parking on verges compacts the ground making it less impervious to water absorption, leading to waterlogging and flooding in wet weather.

Wild Flowers - Some green areas are being managed as wild-flower areas. This is to help mitigate the huge loss of wild-flower land which sustains our insect population. These insects in turn provide pollination which is essential for the production of much of our food.

2.1 – TREE PRESERVATION ORDER (TPO)

Older trees are 70 times more effective in pollution absorption. They are also greatly more effective in flood control, in carbon absorption, and the production of oxygen. Therefore, the preservation of mature trees must be a high priority.

A Tree Preservation Order (TPO) is a form of planning control that protects trees which make a significant contribution to the amenity of the area. TPOs are usually made to protect trees which are visually prominent, but factors such as wildlife value, rarity or cultural significance can also be taken into account.

The making of a TPO is often prompted when trees are under a known or suspected threat of being cut down or damaged. They are sometimes also made following notification of works in a conservation area. Trees in a conservation area that are over 75 millimetres stem diameter at 1.5 metres above ground level are protected in a very similar way to TPO trees.

It is illegal to cut down, prune, or damage a tree in a conservation area or one which is protected by a TPO, without Bucks Council consent. The unauthorised lopping or felling of a protected tree is a serious criminal offence and can result in a large fine and a criminal record. Fines can be up to £20,000 per tree plus costs, a requirement to replace the tree and a criminal record.

The Parish Council suggests that Bucks Council place automatic TPOs on newly planted Parish trees, as a matter of standard procedure. TPOs from the Parish Council must be considered against the criteria for protecting such trees in accordance with the rules. The Parish Council will lobby Bucks Councilors to support a change in the criteria to broaden the scope for TPOs, to include protection of a tree solely for its environmental benefits to residents, cleaner air and lower flood risks.

The Parish Council would recommend that Bucks Council mark each protected tree with a small hanging disc marker which will not damage the bark, this will not only inform residents but also contractors, of the protection around the tree.

Any applications to fell a TPO will follow the Bucks planning regulations and be assessed by Bucks Council. The Parish Council will respond via the Amenities & Planning Committee when the planning application to fell comes through. The A&P Committee will welcome feedback to any TPO application from the Open Spaces committee.

Tree Protection Group - A team of volunteers from the Parish Council should be established to propose, on a road by road basis, those trees that warrant protection / TPOs. This may be groups of trees, or individual trees, or even a street of trees. All proposals will be passed to the appropriate planning committee for consideration.

The Parish Council would like to see Planning Permission denied where the proposal adversely affects trees, woodlands and hedgerows which are:

- Protected by a Tree Preservation Order (a TPO).
- In a Conservation area.
- Within a recognized nature conservation site
- Ancient Woodland or veteran trees.

2.2 – PLANNING

The Parish Council recommends that there will be an inclusion within the planning process a presumption in favour of the retention and enhancement of existing trees, woodland and hedgerow cover on any site. This upholds the rights of all residents to be protected from air pollution and flooding.

Where there is unavoidable loss of trees on any site authorized by a planning application, the Parish Council would request that a conditional planning statement be added, asking for the replacement of trees on the site, or close by.

The Parish Council welcomes the Ecology and Trees checklist and Ecology Report introduced into the Bucks planning process. As these reports are completed by applicants the Parish Council would support planning enforcement undertaking random checks upon the accuracy of these reports within the planning process.

The Parish Council would also recommend that adjacent street trees are included within this checklist and will lobby local Bucks Councillors to support this activity.

If due to a planning application a healthy tree owned by the Parish Council is removed or is damaged, the homeowner must contact the Parish Council immediately and a replacement tree must be reinstated.

A healthy tree owned by the Parish Council will not be removed on the request of a resident for reasons such as, leaf/fruit falling, bird droppings, improve light or due to size.

The Parish Council would support the protection of hedging within planning applications. Hedging is a great source of habitat for wildlife, and an effective privacy barrier. Hedging also has a significant ability to capture air pollution and mitigate flooding. Their removal for any reason including the creation of an open frontage or parking space must be actively discouraged.

The Parish Council would welcome open communications with Bucks Council to support a planning process which does not endanger the ecology and trees of Chalfont St Peter.

2.3 – PLANTING AND MANAGEMENT OF NEW TREE PLANTING

New trees should be planted by the Parish on an annual basis in addition to any replacement trees, budget and circumstances permitting. This is to ensure a gradual increase in tree cover in line with environmentally good practice and the need to address Climate Change. Annual Budget's must reflect this commitment.

Choice of tree species must be wide and varied in case any new diseases enter the tree stock. Trees must be chosen to fit into the area, considering shape, size and spread. Tree choices should also reflect the need for the support of biodiversity, providing ample differing nectar, pollen and fruits throughout the year.

Choices should take into account climate change effects going forward. Trees able to cope with higher temperatures and longer dry spells must be included. Further consideration should be given to the shade benefits from wider canopies where these can be accommodated.

The siting of street trees should prioritize need and benefits:

* Street trees on roadside verges or green areas, where their air clearing role is maximized.

* Heavy traffic areas to be a priority.
* Junctions, where exhaust fumes are heavier. Vision splays to be maintained.
* Areas near schools, nurseries, or homes.
* In addition, an important factor is the availability of Tree Guardian support.
* The Parish Council will use land in its ownership and that of County to site more trees and shrubs, in play areas, outside schools and alongside roads.

Appropriate management measures will be required to protect newly planted and existing trees, woodlands and/or hedgerows.

All newly planted street trees should have a 1-metre circle/ square around the base with no grass or weed growth, to increase water uptake, and reduce the risk of strimmer damage. Appropriate supports to be provided. Good practice would suggest that the addition of mulch around a tree base will greatly improve the health of that tree. Mulch should never come into contact with the tree trunk.

Where street trees are planted, appropriate steps in the form of physical barriers to be placed to protect tree roots from repeated parking on Bucks Council grass verges.
Many roots are in the top 30 cms. of soil, the oxygen pockets needed for tree root survival will be compressed after even one incursion of a vehicle, (2 tons is the average weight of a large car). This compression leads to tree root death, as the tree cannot access oxygen and essential nutrients. Further, compaction makes it hard for roots to penetrate the soil and continue to grow

Tree Guardians - A Tree Guardian is a volunteer member of the community who has stepped forward to help water the new trees three times a week with 3 full 10L sized watering cans per tree, throughout the growing season, for three years. UK Statistics reveal that 40% of local authority planted trees die in the first few years...predominantly due to lack of water.

All newly planted street trees should be allocated one or more Tree Guardian/s who agree to water their allocated tree/s for three growing seasons. Appropriate guidance is provided by email to these essential volunteer residents, and support offered whenever it is requested or required by Parish Councillors involved in the tree planting.

Ongoing care of trees, checking ties and general issues will be carried out.

2.4 – GIFTED OR MEMORIAL TREES

Should residents request a tree as a celebration or memorial of any life event, or simply as an addition to their own area, the Parish Council will support such a request subject to conditions such as siting, species, underground services, costs and available staff time. A copy of the Tree Donation Policy can be found in Appendix 1. A Memorial book to log gifted trees to be held by the Parish Office, and details of the gifting noted therein, should that be acceptable to the donor.

2.5 – REPLACEMENT POLICY

The Parish Council would support the introduction of a replacement policy in the event a tree is removed for any reason by Bucks Council or has failed due to age or extreme weather. This replacement will be added to the annual tree planting schedule. This plant will be subject to a number of conditions 1) Siting - Due to tree roots it is normally not advisable to replant in the same position, a suitable location as close to the original will be located. However, this is subject to underground service checks and Bucks license agreement. 2) Disease - If the original tree died due to disease, a suitable new location and species will be considered. 3) Budget – The Parish Council budgets are set in the previous year, if in the event of a bad weather episode a number of trees fail, the Parish Council may not be able to replace all trees within the same year.

Therefore, consideration will be given by the Open Spaces committee to replacement of those which fall within the criteria set out in 2.3, siting of trees, and fall within budget.

The Parish Council suggests that the details of any replacement trees are forwarded to the Tree Protection Group (2.1) for inclusion in their list of TPO requests.

2.6 – GREEN AREAS AND VERGES

Roadside verges play a vital role in flood control, protection of these areas is essential. Maintaining the verge's ability to absorb rainfall is critical in this role. Every effort should be made to explain to residents the importance of green land and of not using such areas as car parks, Parking causes compression of soil, due to the weight of vehicles. The pockets of oxygen in the soil, which allow tree roots to live, are squeezed out, and tree roots are killed, this can sometimes happen after even one incursion by a vehicle. This will lead to the gradual death of a tree. Such soil acts much as if it were concrete.

When any piece of land is consistently damaged by parking or other means, action should be considered, which may include the erection of Bucks Council approved posts.

2.7 - BIODIVERSITY

The Parish Council introduced the Commons Management Plan in 2013 which fully supports the introduction of wildflower areas, leaving areas for long grass and improving biodiversity within Chalfont St Peter. The Parish Council have also introduced pollination corridors of long grass and wildflower verges since its management of Bucks verges in 2014. Although the Parish Council no longer manages these verges, working closely with Bucks Council they have agreed not to cut a number of large verge areas to support the ongoing great work of biodiversity. The Parish Council will continue to expand these areas where suitable locations are identified.

The Comms & PR Committee will actively inform residents of the benefits of these policies through targeted campaigns, informing residents of the following –

- Every effort should be made to explain the importance to residents of supporting pollinating insects by allowing wildflower areas.
- Residents must be aware that bat roosting sites are protected by law. Any place a bat may use for shelter is protected whether bats are present or not at the time.
- The Parish Council would support the use of hedging and would discourage its removal. Hedging is a great source of habitat for wildlife, an effective privacy barrier, it has the capability to capture air pollution and mitigate flooding. Where possible, trees should be allowed to grow up through hedges to increase wildlife habitat and pollution removal from the air.
- Hedge cutting – It is an offence under Section 1 of the Wildlife and Countryside Act of 1981 to damage or destroy the nest of a wild bird whilst in use or being built, or to kill or injure, or take chicks or eggs. This means you cannot cut or trim a hedge or tree with mechanized equipment between 1st March and 1st September. Hand tools are permitted.

3. RESEARCH FINDINGS

3.1 SUGGESTED GOOD PRACTICE.

Local Authorities have been recommended to produce robust individual tree policies because of the vital role trees play in the environment.

The Woodland Trust recommends that local planning authorities adopt a trees and woodland strategy in response to :-

*Meet the statutory biodiversity obligations as set out in the Natural Environment and Rural Communities Act 2006 (s.40; duty to conserve biodiversity)

*To comply with the requirements of the National Planning Policy Framework (section 11; Conserving and enhancing the natural environment).

*Guidance on these strategies can be found here: https://www.woodlandtrust.org.uk/publications/2016/07/local-authority-tree-strategies/

*The Government has not made such strategies mandatory yet but this may change with the publication of the Government's Tree Strategy for England, which is expected to be published later in 2020.

The new Environment Bill, has flagged up the importance of tree protection, and the need for consultation with Local Authorities over tree felling and replanting. They have also set out clear steps to protect biodiversity, local Green Spaces, the environment, address Climate Change, flooding and sustainable development.

There is specific reference to street trees in urban areas, which are noted as extremely important for human health and welfare. A tree strategy is therefore a recommended action as a stand-alone policy, or as part of the Local Plan, Neighbourhood Plan, Core strategy or /and as a Supplementary Planning Document.(S.P.D.) Such a policy will help Local Authorities to meet their statutory biodiversity obligations as set out in the Natural Environment and Rural communities Act 2006 (Section 40, Duty to Conserve Biodiversity), and to comply with the requirements of the National Planning Policy framework (Section 11, Conserving and Enhancing the Natural Environment).

It will further support the Local Authority in maximizing the benefits of trees for health, climate change and water management, and will save time processing planning questions or applications, as Officers can refer directly to the policy.

3.2.THE IMPORTANCE OF TREES AND GREEN SPACES .

3.2.1. POLLUTION

***Road traffic emissions are one of the biggest contributors to air pollution in urban areas. 85% of Europe's residents breath in air which contains well over the WHO recommended levels of Particulate Matter, (P.M.s) see below.**
40,000 -60,000 premature deaths in the UK are caused by air pollution.
The UK has one of the highest rates of asthma in the world, with 15% of our children affected.
Chalfont St Peter has an ever increasing traffic load with new build both locally, and through traffic from other developments in surrounding regions.1*2*

***Trees provide protection for residents from polluted air from traffic. Leaves absorb pollutant gases from exhaust fumes into tiny pores,(stomata), on their under sides, breaking down the dangerous chemical constituents into harmless products.**

*Branches and leaves capture dangerous P.M.s, and these are then washed down into the soil, where they are again broken down by soil bacteria.

*The minute particles from exhaust fumes, (P.M.s,) are so fine that they are breathed deep into the lungs and on into the blood stream. They are known to damage the immune system, the heart and lungs, cause increased cancer levels, neurological degenerative disorders and asthma.
It is now believed that this pollution also affects children's cognitive abilities, their ability to learn, and even affects babies in the womb. ***2**

*A row of trees in front of a home, or school, cuts pollution in the front rooms of those buildings by 60%. *3

*The air around a tree holds over 25% less PM pollution than the general area.

*A mature tree of 77cms girth or more removes 70 times more pollution than smaller trees of 8 cm girth. ***7**

A person living on a tree lined road has a 7x less chance of developing asthma.*3

*Even one tree as a screen reduces P.M. concentrations immediately behind it by 25%

***The Committee on Climate Change** has noted that new trees are the simplest solution to reducing Climate Change, but such planting must triple, carbon capture and storage being essential.
Dense trees with under planting of shrubs to the leeward of pollution sources maximizes the pollutant scrubbing effects that plants are able to provide.
A dense hedge will also trap P.M.s, absorb run off significantly and cool surrounding air. Increasing numbers of hedges are being uprooted, with a huge loss in terms of residents health and environmental protection..

With increasing evidence that exposure to air pollution has many adverse health risks - identifying ways to reduce this exposure is a public health priority.

3.2.2. FLOODING.
Chalfont St Peter suffers from frequent flooding.

* The frequency and severity of storms is predicted to increase as a result of Climate Change.
* Flooding will become an ever more common occurrence as excessive surface run off water from heavy rainfall hits and overwhelms our drains.

* Increased building and hard cover of land is a primary reason for this run off flooding.

* Engineers are increasingly looking to use natural ways of dealing with run off water. Sustainable Urban Drainage Systems (SUDs) can be expensive, difficult to retro fit, there is little public money, and a far easier and cheaper solution is use green areas for run off.

***Using swales and run off areas.**
By creating “swales”, (areas of flat vegetated land slightly lower than the surrounds), water is channelled by slight gradients on open hard surfaces e.g., car parks or roads, and drains into these areas where the water is then absorbed by vegetation. Swales / water run off

areas are taking hold across the world as a solution to water control using natural means. Planting trees in swales or run off areas further enhances water absorption.*4

***How do trees help?**

When rainfall hits land with trees, it first hits the **tree canopy**, and is held for some considerable time on leaves and twigs, so trees first intercept the rainfall, slowing its progress.
Much water is evaporated before it even hits the ground.
Land softened by tree roots absorbs vastly more rainfall, where it soaks down into the subsoil.
Tree roots work through soil, making the land more sponge like and absorbent of water. Tree roots can increase infiltration rates in compacted soil by over 63%. As a result rain falling on that softened land soaks in rather than runs off into roads and drains. Research has shown that even fairly young trees can increase the infiltration rates very significantly, so planting on green verges will greatly improve storm water management.
A mature tree can "drink" 50 -100 gallons a day.
The canopy and structure of trees can reduce the run off to drains by up to 80%.
Mature trees are more effective in all roles.

***Parking on green land and protecting vital green space.**

If green land is compressed by parking it acts more like concrete, so rainfall runs off and increases flooding.

*Trees may struggle to establish on compacted land.

*Green verges fulfil a vital role as Soakaways for rainfall, and should not, except in exceptional situations, be used as parking space.

*Parking on green land squeezes out oxygen from the soil, and kills tree roots which need pockets of oxygen around them to survive.

***Asphalt or impermeable land cover sheds 90% of rainfall to the drains.**

If there is more build, more hard cover in driveways, homes and similar, water runs straight off the roofs and driveways into street drains.
Artificially created soakaways do not last forever, and without regular cleaning do not serve their purpose longer term.
Natural soakaway areas, plus permeable cover in drives where water is channelled into vegetated areas serves this need more effectively, whilst also creating other benefits offered by vegetation for wildlife.

*The Pitt Report 2007.

The government commissioned The Pitt Report into the causation of serious flooding events, which have continued to occur regularly since that time. The analysis of the Pitt report flagged up the ever increasing amount of hard land cover from build and paving, together with the loss of tree and green land as the major contributory factors leading to urban floods.

(This report concluded that two thirds of flooding had run off water as the main cause.)

The recommendations of this report should be a red flag for tree protection, but this has not moved into daily thinking and policy.

The flooding in Chalfont St Peter was noted as having increased hard land cover as one of its contributory factors. The increase of build in Chalfont St Peter, will greatly exacerbate flooding around the village and its centre.

3.2.3. WATER QUALITY

When flood water runs straight off the ground into drains, it carries contaminants with it, e.g., car pollutants, chemicals, fertilizers, rubbers from tyres and animal faeces. Ultimately, once processed, we drink this water. If the water is slowed up by trees, it soaks into the ground, where plants and microbes are able to break down many of these pollutants.

3.2.4. TEMPERATURE CONTROL.

Hotter summers are predicted to be ever more common. This leads to increased Ozone levels which increase respiratory and cardiac problems.*1
One mature tree gives out 450 litres (88 gallons) of moisture into the atmosphere a day (the equivalent of 10 room sized air conditioners left on for 19 hours.) This makes the environment cooler and healthier.
(Note in the 2003 heatwave 2,000 people died due to heat alone.)

3.2.5. OXYGEN

One mature tree or 4/5 smaller trees will produce enough Oxygen for 1 person.
The larger and older a tree is the more Oxygen it will produce.

3.2.6. NOISE POLLUTION

Trees can reduce noise levels, especially if evergreen. Mature trees intercept sound waves. Trees can block 3.5 decibels of noise, even more with a row of mature trees.

3.2.7. CARBON SINKS.

In research studies, trees are the cheapest and most effective way to control Carbon Dioxide. Carbon is locked into trunk, roots and branches at a rate of 48 lbs. per year in a more mature tree. Older trees absorb more. *9

3.2.8. GENERAL WELLBEING.

Trees are known to slow traffic, speed healing, increase outdoor activity and release beneficial chemicals which aid the immune system.

3.2.9. BIODIVERSITY.

Local Authorities should act to meet their statutory biodiversity obligations as set out in the Natural Environment and Rural Communities Act 2006, Section 40, a duty to conserve biodiversity and to comply with the requirements of the National Planning Policy Framework section 11, conserving and enhancing the natural environment.
Trees are an excellent source of pollen and nectar for pollinating insects, along with wild flowers.

"If all back boned animals, (including us,) disappeared overnight, the rest of the world would carry on much as before. But if invertebrates (insects etc.) were to disappear, the whole world's ecosystems would collapse along with our life on this planet." Sir David Attenborough.

The UK has lost 97% of its wild flower meadows, vital food for pollinators which are declining in numbers to an alarming degree.

90% of our crops are insect pollinated. 80% of our crops are pollinated by wild pollinators.
One in every 3 mouthfuls of food depend on these small creatures. (We have already lost £5m. of our Gala apple crop due to lack of pollinators.)
Developing a policy to allow wild flowers to grow on road verges, open spaces, roundabouts or wherever there is space, could significantly increase the number of insects(pollinators and help to feed and increase these insects, and so protect our own future food supplies.
This is a critical responsibility for all Local Authorities.

3.2. 10. HEDGES.

Very recent research carried out by Dr Tijana Blanusa of the RHS *6 is showing that the role of urban hedges has been badly neglected in the fight against air pollution and the absorption of run-off water.
Professor Kumar of Guildford University has also found that the growing of hedges alongside roads, will cut pollution from toxic fumes by around 33%.
The R.H.S. Research shows that to achieve the best protection from air pollutants, a hedge should be at least 6 feet in height, and at least 3 feet wide.
Local Authorities are asked to consider planting hedges near to roads where this can be achieved, and to inform householders of the need to protect hedges for the health of their families or themselves.
Efforts should be made to share this research with residents, and encourage the planting of dense hedges as recommended by the research teams.

3.2.11. TREES A NEW UNDERSTANDING IS VITAL.

Trees are often felled with little or no consideration given to their value to human existence, health and well-being.
This should begin to be viewed as an ecological and health insult to the whole of any community. Indeed the removal of health protective trees without good reason is akin to lack of protection from harm in a work place.

3.2.12. CONCLUSIONS

Until very recently, there has been no concerted effort to provide information about tree benefits to the population . As a result, trees in large numbers continue to be felled without due consideration being given to the potentially significant negative implications for all residents.

Replacement with new, smaller trees will not answer this problem.
Large, healthy trees of 30inches/77cms in diameter are 70 times more efficient than a young healthy tree of under 10 inches/25 cms. in diameter in extracting pollution from the air and are also more efficient at cooling air, controlling flooding and acting as a carbon sink. *7

Mature trees must be protected in the most energetic way possible, for the sake of the health of the community.

Trees should be regarded as vital community commodities, and not just individually owned and easily dispensable objects.

Clean air, and healthy living conditions are a shared resource and a huge public health issue. The behaviour of one resident should not deprive others of healthy air and a more beneficial living environment.

We now face a new wave of building in Chalfont St Peter, leading to more hard surfaces, air pollution and traffic.
Add to this Climate Change, which demands our urgent engagement, and we have no option but to prioritize tree protection, planting, and to act swiftly on the protection of all green spaces.
There is a responsibility not just to provide homes, but to provide a healthy environment in which families can enjoy the best health and well being possible for themselves and their children.

There is a need to ensure that residents are fully informed, and measures are taken to protect their health and well-being.
Planning teams, Councillors and Inspectors play the key roles. They must be given easy access to the most recent research into air pollution, flooding and the ways to address Climate Change.
We cannot ask these Officers to carry out their vital roles without them being fully informed.

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4. RESEARCH FINDINGS

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"The global tree restoration potential report" T. Crowther, published in Science July 2019 ***9**
Plantlife directive: Managing Grassland Road verges, a best practice guide**.*10**
Trees in relation to design, demolition and construction April 2012.***11**

Kate Southworth JULY 2020.