SUSTAINABLE WATER MANAGEMENT

TREES ARE PART OF THE SOLUTION

May 2023

Arboricultural ASSOCIATION
trees.org.uk

LTOA
London Tree Officers Association

Revised and updated by John Parker (Arboricultural Association) and Richard Edwards (LTOA).

The home of tree care

Published in the UK by
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First published in 2012
Third Edition published in May 2023

Image credits:
Contents inset image by Dave Lofthouse.
Cover and all other images by John Parker.

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> ***"Here I discovered water ... a very different element from the green crawling scum that stank in the garden tub. You could pump it in pure blue gulps out of the ground, you could swing on the pump handle and it came out sparkling like liquid sky ... Substance of magic – which you could tear or wear, confine or scatter, or send down holes, but never burn or break or destroy."***
>
> *Laurie Lee, Cider With Rosie.*

1. INTRODUCTION

1.1 It is a well-established fact that amenity trees (those found in gardens, parks, on streets and in other places near where people live and work) deliver a wide range of environmental, social and economic benefits to society (Davies *et al*, 2017). However, if they are to fulfil their potential it is critical that trees are able to establish themselves successfully, thriving in the landscape and reaching maturity. In order to grow from saplings to semi-mature and mature specimens, newly-planted trees need water. The purpose of this document is to outline some of the factors to consider when watering trees, both in ordinary conditions and during times of drought.

1.2 Some of the benefits of trees relate directly to water – both too much, and too little. Trees are an integral part of urban water cycles, slowing the percolation rate of water by interrupting rainfall and releasing it more gradually to ground level, and in many cases channelling water down the stem and into tree pits instead of the surrounding hard landscape (Xiao *et al*, 2000). The risk of flooding is further alleviated by the increased permeability of soil caused by roots penetrating previously compacted areas (Denman *et al*, 2012). Soil moisture is steadily replenished and the constant process of transpiration helps to prevent waterlogging. In the absence of trees, rainfall hits our paved

INTRODUCTION

surfaces and is directed straight into the drainage systems (where capacity allows) to be lost without benefit.

1.3 The high (and increasing) ratio of hard, reflective surfaces in our towns and cities – combined with high levels of heat and fuel emissions – make them particularly susceptible to the urban heat island effect (Nuruzzaman, 2015). It is acknowledged that urban environments can be several degrees warmer than surrounding rural areas (Ennos, 2012). These increased temperatures exacerbate local drought conditions and can elevate temperatures above acceptable levels for the resident population. Trees – and the canopy cover they provide – play a crucial role in alleviating the effects of these conditions (Ray *et al*, 2010) by regulating temperatures through the provision of shade, reducing wind speeds, through the discernible effects of transpiration and by reducing the risk of flooding.

1.4 Climate change forecasters predict more weather extremes in the future, featuring both heavy rainfall (Otto *et al*, 2018) and long periods of drought (Grillakis, 2019). Tree planting is sometimes put forward as the solution to the climate crisis, and in recent years there have been many political promises to plant hundreds of thousands of trees. However, there is little value in planting all of these trees if they are not going to be properly cared for afterwards. They can mitigate some of the effects of the climate crisis, but cannot fix the problem alone. Trees are part of the solution.

1.5 This document was originally published by the LTOA in 2013 and was produced by the Sustainable Water Management Working Party, comprised of Rupert Bentley Walls, Cameron Brown, David Lofthouse, John Parker, Katie Roberts and Grayham Tindal. It was then updated by the group in 2016. This 2023 version has been revised and updated by John Parker (Arboricultural Association) and Richard Edwards (LTOA).

2. QUANTITY AND DELIVERY

2.1 The volume of water that a newly-planted tree should receive – and the frequency at which it receives it – is dependent on many factors. Species, size, soil type, soil conditions and competing vegetation are just some of the considerations which must be taken into account. It is therefore impossible to provide an accurate, universally-appropriate watering specification for the establishment period of young trees.

2.2 Having said this, it is possible and useful to make some generalisations. As a general rule, for the first three years after planting, a young tree should receive 50 litres of water once per week between approximately the beginning of April andl the end of September. Ideally not all 50 litres will be delivered in a single visit, and at least some of the

QUANTITY AND DELIVERY

water will be applied in the evening or at night.

2.3 Tree managers and volunteers may choose to introduce a more nuanced plan for irrigating newly-planted trees, and where it is possible this can be considered good practice. For example, it may be appropriate to water every other week in April, May and September, and every week in June, July and August. More accurate requirements may be calculated on a tree-by-tree basis but this requires additional site investigation, data and monitoring to ensure that adequate water levels are supplied.

2.4 It is recommended that trees are watered in the morning or evening, and not in the full heat of the day. Where a tree has a watering pipe, half of the water should be poured down the pipe and half onto the surface of the pit. When watering trees, it is important to ensure that the water is penetrating the ground and not simply running off the surface. In addition to the traditional method of watering individual trees with a bowser or watering can, there are other solutions available which may be more effective in delivering water to the tree over a given period, such as slow-release bags (Hossain *et al*, 2019) or drip-feed irrigation systems.

2.5 Just because it has rained recently recently this does not necessarily mean that additional watering is not required, and it is recommended that newly-planted trees are still watered during the summer months even if there has been some rain. A light shower of rain would not be sufficient to saturate the rooting area. In situations where

BRITISH STANDARD 8545: YOUNG TREES: FROM NURSERY TO INDEPENDENCE IN THE LANDSCAPE

BS8545 (2013):

- States the need for irrigation plans.
- Observes that the timing and frequency of watering should take into account prevailing weather conditions, soil moisture release characteristics and the response of the tree species to water deficit.
- Advises that the frequency of irrigation is more important than the quantity delivered at one time.
- Observes that local rainfall levels are seldom a useful guide to irrigation requirements in situations where young trees with poorly-developed root systems are growing in areas dominated by impervious surfaces.

only the upper surface of the soil is wet, this might encourage shallow root development which might have a detrimental effect on the tree in the medium to long term.

2.6 Those undertaking watering (and the tree managers instructing them) must be aware of how important it is to reduce spillage and waste. This can be achieved through appropriate training and by ensuring that all equipment is fit for purpose. All pipes, valves and fittings should be secure and free of leaks, and operators must be in attendance at all times when filling bowsers. All transportation of water must be undertaken using sealed containers in order to prevent spillage. It is of paramount significance that the general public - and water suppliers - recognise the value of the work being carried out and appreciate the importance that our industry attributes to water conservation and the promotion of responsible usage.

2.7 It is important to recognise that in some circumstances it might be possible to over-water a tree, leading to waterlogging which can have a detrimental affect on the health of the sapling. This must be considered, especially in the context of soil type and the local water table. However, it seems reasonable to say that the risk of underwatering is greater than the risk of overwatering, and this is certainly the case during a heatwave or drought.

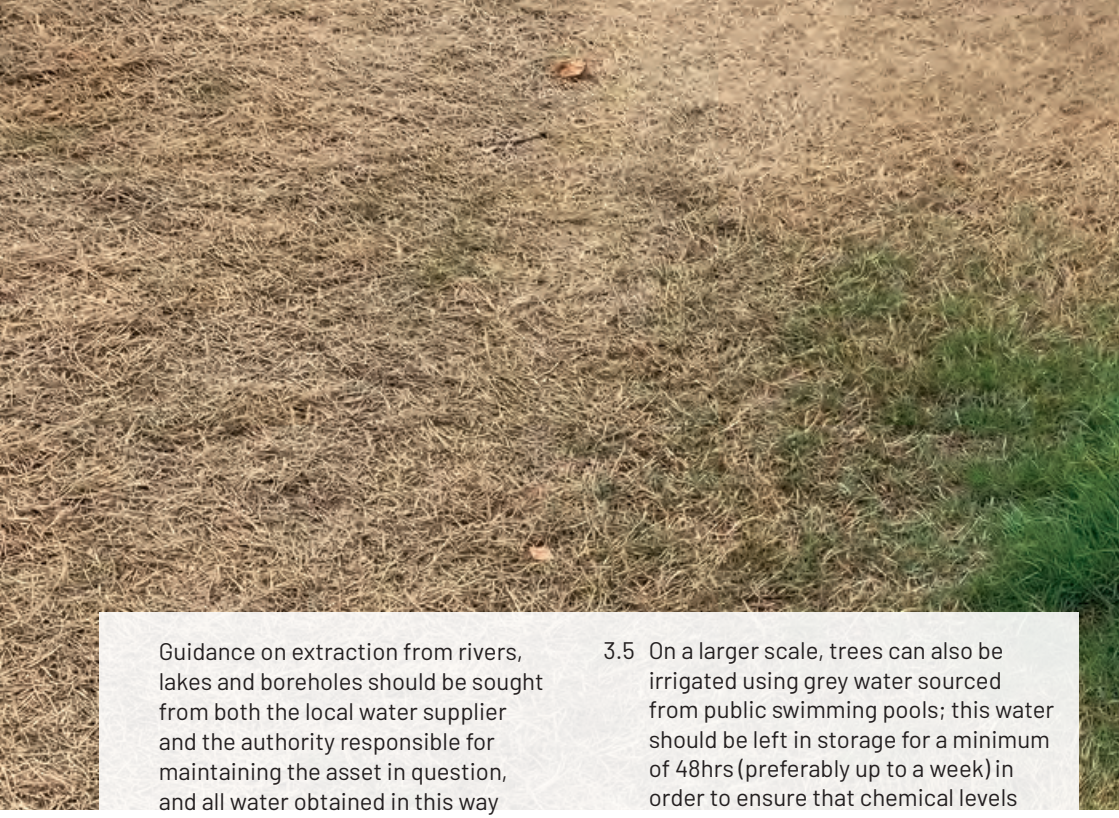
SOURCING

3. SOURCING

3.1 Water is a hugely valuable, though often unappreciated, resource. It will surely be unthinkable to future generations that well into the 21st century our society used drinking-quality (potable) water to clean our cars, flush our toilets and irrigate our gardens. The arboricultural industry should work towards a system of sustainable water management in its activities at all times, regardless of whether or not there is a drought.

3.2 Harvested rainwater is one sustainable source of water, and rainwater butts are an effective way of collecting water to be re-used at a later date. The Royal Horticultural Society (RHS) estimates that more than 20,000 litres of rainwater could be collected from a household roof each year. If tree contractors have the space and the capacity to collect and store rainwater in their depots over the wetter months then it would go some way to providing a sustainable source of water, as well as clearly demonstrating the commitment of the arboricultural industry to minimise mains usage as far as reasonably practicable. The same principle can be applied to municipal buildings, where practical, and by homeowners.

3.3 Some tree managers may have access to water sources such as rivers, lakes and boreholes. Such resources must be used responsibly, and water should only be extracted using appropriate methods and in acceptable quantities.



Guidance on extraction from rivers, lakes and boreholes should be sought from both the local water supplier and the authority responsible for maintaining the asset in question, and all water obtained in this way must be gathered and transported in a way which minimizes wastage. In situations where one local authority is in possession of this resource it is recommended that it liaises with neighbouring authorities, working together to maximise the benefits for the whole area rather than being exclusively constrained by political and borough boundaries.

3.4 Grey water – water not fit for human consumption, but suitable for trees – should be considered and, where possible, prioritised over potable water. On a domestic level this might include water from the bath, shower or paddling pool, or water which has been previously used for washing up. Water from dishwashers and washing machines is not recommended for use on trees because of the chemical and salt content.

3.5 On a larger scale, trees can also be irrigated using grey water sourced from public swimming pools; this water should be left in storage for a minimum of 48hrs (preferably up to a week) in order to ensure that chemical levels have reduced down to 1ppm and that the pH is between 7 and 8. It can then be used to irrigate trees and shrubs, ideally being concentrated on those species with a known tolerance to salt (Percival, 2012). A solution such as this is not likely to be something that can be easily arranged at short notice; an emergency procedure should therefore be in place for the storage and subsequent use of this potential resource so that it can be accessed in times of need.

3.6 Mapping and calculating the capacity of these reserves – including swimming pools, boreholes and rivers etc. – allows managers and operators to swiftly implement programmes of work during extended periods of drought. It should be remembered that using water from swimming pools is still only a local solution, and should be regarded as just one part of a wider strategy promoting water recycling.

DESIGN, PLANNING AND MAINTENANCE

4. DESIGN, PLANNING AND MAINTENANCE

4.1 Sustainable water management should be a consideration at all stages of tree planting and establishment, not just during the act of watering itself. When selecting a tree species for planting, one of the many factors to consider is water requirements and drought tolerance, especially in the context of a changing climate. This is also particularly true when locating trees in a position where access for watering might be difficult, for example in a park where there is no water source nearby. More information about species selection can be found in the Trees and Design Action Group publication *Tree species selection for green infrastructure: A guide for specifiers* (Hirons and Sjöman, 2019).

4.2 New trees should be planted in pits which will maximise the effectiveness of future irrigation. This is not generally a solution which can be implemented retrospectively for existing trees, but is something which should be considered for the future. The overall design of the pit should be intended to maximise root development and water storage whilst allowing adequate drainage. It should be noted that tree pit compaction due to pedestrian traffic may mean that careful maintenance is required to increase permeability and aeration.

4.3 The pressures of planting in urban situations often mean that the ideal pit is not possible to achieve, but in general it should be ensured that watering pipes are installed in such a way as to allow a thorough wetting of the root ball as opposed to merely channelling water

into the ground below. The openings of watering pipes should be checked regularly and kept clear of obstructions.

4.4 Organic bark mulch is a preferred surface material for trees in hard and soft landscapes. The benefits of using this material include suppression of weed growth, soil improvement and preventing strimmer damage, as well as cost-effectiveness. In the context of tree watering, a layer of organic bark mulch can help retain moisture in the soil and assist with sustainable water management. Mulch should be well-composted and not piled up around the base of the stem. See *An introductory guide to young tree establishment* (Arboricultural Association, 2022) for more information.

4.5 Competing vegetation in tree pits has a detrimental effect on the growth and development of newly-planted trees (Willoughby *et al*, 2009). Managing this competition is therefore an important part of the establishment period, particularly under drought conditions. Residents and other third parties are increasingly becoming involved in local landscape management (McKay, 2011), working to improve conditions in their estates, parks and streets by planting flowers and shrubs, often within tree pits and in competition with the tree. This shallow-rooting vegetation will typically survive at the expense of the tree, and should therefore be removed from pits. If competing vegetation is to be removed then chemical spraying should be avoided; there are concerns as to the effect of weedkillers on the young tree itself, and on the water and fungi in the soil (Busse *et al*, 2001). The loss of existing - and developing - mycorrhizal associations would have a detrimental effect on the health of the tree (Boddy, 2021).

4.6 Sustainable urban drainage systems (SUDS) are common across Europe and the USA and are increasingly embedded in regulatory frameworks; in the UK they have been actively promoted by Defra (Defra, 2011) and Thames Water (Thames Water, 2011) amongst others. Furthermore, legislation requires new developments and redevelopments in England and Wales to implement sustainable drainage/surface runoff plans into their design (The Flood and Water Management Act 2010; National Planning Policy Framework, 2021). Wherever possible, trees should be considered for incorporation into sustainable drainage schemes and sustainable drainage should be considered in tree planting schemes.

4.7 As technology progresses and becomes more affordable, other innovations to help with watering may become accessible to tree owners and managers. This might include printing QR codes on tree labels or stakes to communicate more accurate watering requirements on a tree-by-tree basis, or sensors installed in the tree pit to record and report soil moisture levels and then send alerts when additional irrigation is needed. Soil ameliorants such as biochar or water-retaining granules may also have a role to play. Arboriculturists are encouraged to share ideas and experiences with other professionals when it comes to these innovations, particularly before making any significant financial investment.

COMMUNITY ENGAGEMENT

5. COMMUNITY ENGAGEMENT

5.1 The different people responsible for watering trees in the public realm in the UK can be broadly divided into three groups.

Contractors who are engaged to water trees on a commercial basis.

Local authorities and councils which use their own staff to water their trees.

Community groups and individuals who volunteer to water local trees.

In ordinary times, where there are no water shortages, the rules and guidance applying to each of these groups is largely the same. However, there can be some significant differences when there are drought conditions and water restrictions are in place (see Section 6).

5.2 It seems reasonable to say that most watering of newly-planted trees has traditionally been undertaken by contractors and local authorities. This is often entirely appropriate, particularly when there are health and safety considerations involved such as when watering trees adjacent to the highway or other utility infrastructure. All watering operations must be undertaken with the appropriate safety considerations, including risk assessments, traffic management and personal protective equipment where appropriate.

5.3 However, in recent years the involvement of volunteers – including community groups and individuals – has become increasingly important.

CASE STUDY: THE STONEHOUSE COMMUNITY ARBORETUM

Stonehouse, Gloucestershire

As part of the Stonehouse Community Arboretum project a local Tree Group was set up to help with tree care in the town. Residents have adopted newly-planted trees in their vicinity, and volunteer to keep them watered throughout the summer, sharing information via email. An established local community group, Stonehouse in Bloom, has helped with coordination and watering. The project is an example of a successful collaboration between residents, business, community groups, the Town Council and arboricultural professionals. To find out more about the Stonehouse Community Arboretum, visit **www.stonehousetowncouncil.gov.uk/our-projects/stonehouse-community-arboretum/**.

Anecdotally there has sometimes been concern from tree managers about over-reliance on residents to water trees. This might be because of fears around water quality, commitment (what if the resident moves away, or loses interest etc.?) or the potential contract or liability implications. Despite these concerns – which can sometimes be legitimate – the benefits of engaging the community in the care of their trees will outweigh the risks.

5.4 There is a wide range of options for community engagement in watering. At its most basic level this might involve issuing social media bulletins, or affixing "please water me" notices to newly-planted trees. Examples of these tags can be found in the Appendices of this document. It may be appropriate to use existing networks, such as Tree Wardens, "Friends of" or local horti-cultural groups. In some situations it may be necessary to create a new group. Advice is available from organisations including the Arboricultural Association and Tree Council.

5.5 Successful collaboration between residents and arboricultural professionals can often be dependent on trust and openness. It is important that local authorities make it clear that by working with the community they are not simply offloading their responsibilities for tree care onto others. The best way to ensure that our trees establish and thrive is a combined approach. Residents seeking to set up a watering group should also contact their local authority tree officer for more information.

5.6 Tree managers instructing contractors to water trees should specify exactly how much water they expect to be delivered per tree, per visit, so that wastage can be avoided and the maximum number of trees can be safeguarded from failure. Individuals coordinating community groups engaged in tree watering should seek to ensure that their groups are aware of the issues associated with watering, including the volume of water required and the risk of overwatering.

TREES AND DROUGHT

6. TREES AND DROUGHT

6.1 Periods of drought can be dangerous for all trees, but newly-planted specimens are particularly vulnerable (Chiatante *et al*, 1999). As previously stated, young trees should be watered for the first three years after planting. When a drought occurs, not only are these trees entirely dependant on this source of water to survive, but the imposition of restrictions of water usage can mean that they are at risk from not being sufficiently cared for. At a time when national and local governments are investing huge amounts of public money in planting trees, it is vital that the necessary steps are taken to stop these trees from dying due to a lack of water.

6.2 The water system in England and Wales was entirely privatised in the 1980s, a wholesale transfer of public assets into private hands unique anywhere in the world. Amongst the many consequences of this decision, one of the most significant is that control of water is now held by a number of privately-owned companies who are able to impose their own restrictions on water usage, largely without the involvement of government.

6.3 There are two main levels of water restriction in the UK: Temporary Use Bans and Drought Order Restrictions.

Drought Order Restrictions
This level of water usage restriction is applied by water companies to commercial ventures/non-household companies. This might include commercial car washing or window

cleaning, and could potentially include companies commercially watering trees in gardens or public spaces.
A Drought Order can only be granted by the Secretary of State, who must be satisfied that "by reason of an exceptional shortage of rain, a serious deficiency of supplies of water in any area exists or is threatened."
A Drought Order Restriction is very rare, and therefore will not be dealt with in any detail in this document. In the event of a Drought Order coming into force, residents, contractors and local authorities are advised to speak to their local water company to determine restrictions. A Drought Order Restriction is very rare, and therefore will not be dealt with in any detail in this document. In the event of a Drought Order coming in to force, residents, contractors and Local Authorities are advised to speak to their local water company to determine restrictions.

Temporary Use Bans (TUBs)
Commonly referred to as hosepipe bans, TUBs typically apply to domestic customers. Individual water companies determine which water uses are restricted for household customers in order to reduce domestic use of water. This is the most common sort of restriction, and the one which this section of the document will focus on.

6.4 Each water company decides if and when it will introduce a TUB, and what restrictions and exemptions will be included within it. This variation means it is essential that anyone seeking to water trees during a TUB must check the details of the TUB before acting. Each water company will have a legal notice on its website, and some may also feature additional information such as a "frequently asked questions" section which can be very helpful.

6.5 Typically, the legal text will include a list of prohibited uses, most of which clearly relate only to domestic customers. The one prohibition on the "normal" list which can create cause for concern for trees is "watering a garden

with a hosepipe" – this is because of the definition of garden which is often provided with this text:

"Garden" includes a park, gardens open to the public, a domestic garden, a lawn, a grass verge, an area of grass used for sport or recreation, an allotment garden, any area of an allotment garden used for non-commercial purposes and any other green space;

"Garden" does not include agricultural land, as defined in s.109(1) of the Agriculture Act 1947; other land used in the course of a business for the purpose of growing, for sale or commercial use, any crops, fruit, vegetables or other plants; land used for the purpose of a National Plant Collection; a temporary garden or flower display; or plants (including plant organs, seeds, crops and trees) which are in an outdoor pot or in the ground, under cover.

6.6 It is important to remember that a TUB is not a general ban on using water; it is a general ban on using hosepipes. South East Water has defined a hosepipe as:

"Anything designed, adapted or used to serve the same purpose as a hosepipe. This means that garden sprinklers and irrigation systems (outside of the exception), connected to the mains water supply, are all considered to be hosepipes, together with anything attached to them like pressure washers."

Using a watering can or bowser to irrigate trees should still therefore be permitted under a TUB, provided a hosepipe was not used to transfer that water from the tap to the vessel.

6.7 A TUB applies only to domestic users, and those using water for commercial purposes as part of their business are exempt. However, the reference to parks and gardens open to the public confuses this issue. It is hoped that through working with government and water companies in the future, the arboricultural industry will be able to achieve greater clarification on this important matter.

6.8 The implementation of a TUB may create different circumstances and rules for the different groups engaged in watering trees.

- Contractors engaged to water trees on a commercial basis should not be affected and should be able to continue irrigating trees, using a hosepipe if necessary.
- Residents who water trees in their gardens or who water trees in public places in a voluntary capacity should be able to continue to do so, provided they do not use a hosepipe in the process (either directly, or to fill another container).
- Local authorities and councils using their own staff to water trees in public places should be able to continue to do so provided they do not use a hosepipe in the process (either directly, or to fill another container).

6.9 Please note that the information provided here is based on the authors' understanding of the standard text and terminology used in a TUB. However, the disparate management of water in England and Wales means that restrictions will vary from region to region and from one drought to another, and it is critically important that anyone watering trees in a drought has taken all reasonable steps to familiarise themselves with the rules in their local area.

7. CONCLUSIONS

7.1 It now seems generally accepted that trees bring environmental, social and economic benefits to society, and that they can mitigate some of the effects of the climate emergency. For this reason, many governments, organisations and businesses (including some water companies) have committed to planting vast numbers of trees in the coming years. However, if these trees are to fulfil their potential then they must be allowed to grow and thrive. Tree establishment is just as important as tree planting, and one of the most important aspects of this is adequate watering.

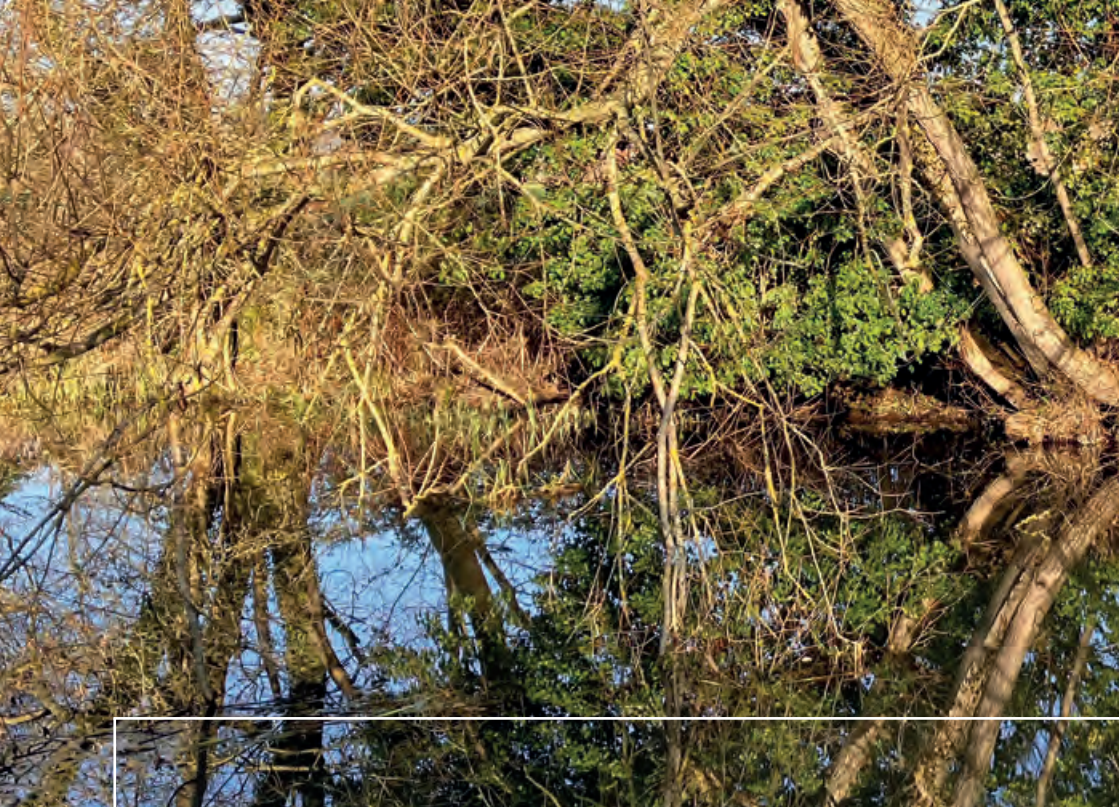
7.2 The arboricultural industry must work harder to become more sustainable when it comes to water management, and the use of captured rainwater and grey water needs to become more commonplace in the future. This is not only the right thing to do in terms of the environment generally, but reducing our reliance on potable water will also make it easier for our industry to adapt in times of water restrictions.

7.3 At the same time, the water companies must do more to recognise the value of trees in meeting their own objectives. For example, amongst their many benefits trees help mitigate flooding and take pressure off the conventional drainage system. Unfortunately there is no mention of trees in any of the standard text around TUBs, leading to confusion about what is and is not permitted in times of water restrictions.

CONCLUSIONS

Those trees which can be watered freely in a drought are treated as such because the water companies are seeking to protect business interests, not trees. This situation must change.

7.4 If our amenity trees are to develop into established specimens delivering benefits to all of our communities then it will take a joint effort from tree managers, arboricultural contractors, allied sectors, the general public, community groups and – critically – the water companies themselves. We must all work together if we are to address the problems presented by the climate emergency, and one of the first steps is to recognise that trees are part of the solution.



8. RECOMMENDATIONS

8.1 The recommendations provided in this document are summarised below. It should be noted that the best time to put these recommendations into practice is before water restrictions are put in place, not afterwards. Good preparation and effective communication are key.

- The arboricultural profession must lobby water companies to include tree watering on the list of exempted activities in future Temporary Use Bans.
- Water should be used responsibly, and conserved wherever possible.
- The use of sustainable water sources such as rainwater and grey water should be increased when watering trees.
- Local authority tree managers should keep a register of alternative sources of water such as swimming pools and boreholes.

RECOMMENDATIONS

- More should be done by contractors, community groups, local authorities and businesses to harvest rainwater during the wet months for use during the summer.
- The general public should be engaged in tree watering programmes.
- Tree species should be selected with a changing climate in mind.
- Tree pits should be designed, built and maintained with water (flooding and drought) in mind.
- Tree pits containing newly-planted trees should be kept clear of all competing vegetation, and organic bark mulch should be used as a surface material where possible and appropriate.
- Local authorities should develop water management programmes and emergency plans to ensure that they are well-placed to meet the challenge of future water restrictions.

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WATERING TAGS IN OTHER LANGUAGES

Scan the QR code below to find the downloads for all posters and tags

PLEASE WATER YOUR TREES!

Arboricultural ASSOCIATION
Tree Care Supporter

Arboricultural ASSOCIATION
trees.org.uk

LTOA
London Tree Officers Association

ATO
Association of Tree Officers

Municipal Tree Officers Association
MTOA
The Voice of Municipal Arboriculture

Newly-planted trees need to be watered regularly over the summer months if they are going to become established and thrive.

If you have a tree outside your house, or one that you pass on your daily walk, then you can help.

Requirements vary depending on a number of factors such as species and location, but a general rule is that they should receive at least 50 litres of water per week in May, June, July and August.

Please water regularly during dry periods with as much as you can – Every little helps

Watering should ideally be carried out in the early morning or evening.

3yrs

It is good practice to water trees for the first three years after planting.

If the tree has a watering pipe, then half of the water should be poured down the pipe and the other half on the ground surface around the tree. If the tree has a watering bag, then fill that.

Where possible, water should be sustainably sourced. Harvested rainwater is ideal, but bath water, or water which has been used for washing up, is also suitable.

More information about tree watering can be found in the **London Tree Officers Association** (LTOA) publication *Sustainable water management*, available for free download at **www.ltoa.org.uk**

For further information, including an introductory guide to young tree establishment, visit **www.trees.org.uk**

www.treecare.org.uk | **www.trees.org.uk** | **www.ltoa.org.uk** | **www.ato.org.uk** | **www.mtoa.co.uk**
Tree Care Supporters | Arboricultural Association | London Tree Officers Association | Association of Tree Officers | Municipal Tree Officers' Association

TREES AND DROUGHT

Arboricultural ASSOCIATION
trees.org.uk

Arboricultural ASSOCIATION
Tree Care Supporter

Trees need water to survive. Once established, most trees are able to find their own water. However, it is recommended that newly-planted trees are given 50 litres of water per week during the summer months for the first three years after planting.

Trees deliver many environmental, social and economic benefits and play a vital role in mitigating the effects of the climate crisis, including cooling temperatures and helping with water management. **Trees are part of the solution**, and watering young trees is an investment in the future.

Sustainable sources of water should always be used wherever possible to do so. This might include captured rainwater or water reused from a bath or shower. Water is a critical resource and should be acknowledged as such.

In times of prolonged dry weather, water shortages can lead to the introduction of water usage restrictions. Different areas and water companies may have different rules during times of drought, and it is important to establish what is and isn't allowed in your area.

Water usage restrictions: There are two key levels of water usage restrictions.

Temporary Use Bans (TUBs)

Commonly referred to as hosepipe bans, TUBs typically apply to domestic customers. Individual water companies determine which water uses are restricted for household customers in order to reduce domestic use of water. Under a TUB:

- **Contractors** engaged to water trees on a commercial basis should not be affected and should be able to continue irrigating trees, using a hosepipe if necessary.
- **Residents** who water trees in their gardens or who water trees in public places in a voluntary capacity should be able to continue to do so, provided they do not use a hosepipe in the process (either directly, or to fill another container).
- **Local Authorities** and Councils using their own staff to water trees in public places should be able to continue to do so provided they do not use a hosepipe in the process (either directly, or to fill another container).

Drought Order Restrictions

This level of water usage restriction is applied by water companies to commercial ventures/non-household companies. This might include commercial car washing or window cleaning, and could potentially include companies commercially watering trees in gardens or public spaces.

- A **Drought Order** can only be granted by the Secretary of State, who must be satisfied that *"by reason of an exceptional shortage of rain, a serious deficiency of supplies of water in any area exists or is threatened."*
- In the event of a Drought Order coming in to force, residents, contractors and Local Authorities are advised to **speak to their local water company** to determine restrictions.

If in any doubt about water restrictions in your area, contact your water company.

Always use sustainable sources of water wherever it is possible to do so.

For more information about tree watering, visit trees.org.uk/watering.

www.treecare.org.uk | **www.trees.org.uk**
Tree Care Supporter | Arboricultural Association

BACKGROUND TO THE ARBORICULTURAL ASSOCIATION

The Arboricultural Association is the leading organisation in the UK for tree care professionals working in all areas of arboriculture, including central and local government, consultancy, contracting, management, production, policymaking, research and education. It has more than 3000 members in the UK and around the world, and is increasingly recognised as an international, as well as a national, leader in arboriculture. The Association is dependent on its members, its volunteers – including Trustees, Committee members and Branch officials – and a dedicated staff team operating out of the Malthouse in Stonehouse, Gloucestershire.

Regarded by UK central government departments, local government and sector partners such as the Royal Horticultural Society as the focal point for best practice in tree care, the Association is unique in that its membership operates across the entire spectrum of the profession. It represents its members on numerous projects, working parties and groups, and collaborates closely with international partners such as the European Arboricultural Council, the European Forum on Urban Forestry and the International Society of Arboriculture.

The Association is a charity as well as a membership organisation, working to advance the science of arboriculture and raise awareness and knowledge of tree care globally, inspiring the general public about the importance of amenity trees and the arboricultural professionals who care for them. Much of this work is done through participation at community and public events, school membership, political engagement and, most recently, via the Tree Care Supporter initiative and public-facing content.

Membership grades are available to suit all arboricultural professionals, to whom the Association offers a wide range of services and benefits. Training courses for members at all stages of their professional career are held in a range of topics, in-person around the country and also, in many cases, online. A busy calendar of events includes the ARB Show, the Annual Amenity Conference – the main UK arboricultural conference of the year – and a packed online programme including an acclaimed webinar series enjoyed by viewers worldwide in more than 140 countries.

The Approved Contractor, Utility Approved Contractor and Registered Consultant Accreditation Schemes help raise professional standards and increase awareness of arboriculture, and the Association publishes best practice guidance documents and two quarterly publications – the *ARB Magazine* and *Arboricultural Journal*. The Association has worked for the good of our members, for the profession and for wider society for more than 50 years, and will continue to do so into the future.

BACKGROUND TO THE LONDON TREE OFFICERS ASSOCIATION

The London Tree Officers Association (LTOA) provides an information network for the exchange of views, experiences and ideas on trees and the management of London's Urban Forest. The Association dates back to 1982 and aims to enhance the management of the capital's trees and woodlands. It involves local authority Tree Officers in all 33 London Boroughs and Transport for London, an associate membership of a wide range of tree professionals and those who manage and care for trees. The LTOA is funded by London Boroughs and associate member subscriptions and is hosted by the London Borough of Camden. Visit: www.ltoa.org.uk

The aim of the LTOA is to promote, support and enhance the urban forest and those who manage it.

Our objectives are:

- To support and represent tree officers and managers for their professional and personal wellbeing.
- To create, influence and contribute towards industry best practice, training and research.
- To influence national and regional policy and legislation relating to trees and other green infrastructure.
- To collect and disseminate information for the benefit of our members.
- To identify, attract and appropriately invest funding for a sustainable financial future.
- To develop professional and political relationships across the UK and internationally.

We have working parties made up of tree officers and other LTOA associate members that often produce best practice guidance documents. These are available by free download from the LTOA website **www.ltoa.org.uk**. The current working parties are working on issues including tree planting specifications, urban tree species selection, planning enforcement and an arboricultural skills survey of London, to name but a few.

As part of our membership package we offer four technical seminars a year, three face to face and one online. Some of the recent themes have been oak processionary moth management, community tree planting and European tree care standards.

We are on the CAVAT (Capital Asset Value for Amenity Trees) Executive board that in 2023 updated CAVAT to produce a revised method which includes new steps that evaluate the completeness and quality of the tree, its crown and canopy, to aid objectivity in tree assessment. The suite of CAVAT documents is held on the LTOA website **www.ltoa.org.uk/resources/cavat**

The LTOA is represented on the National Tree Officers Conference steering group. The conference has been held annually in November since 2017. Developed specifically for tree officers, the National Tree Officers Conference is a great opportunity for tree, woodland and planning professionals to present to their peers on the latest research, best practice and innovation across a wide range of local authority arboricultural and urban forestry work.

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www.trees.org.uk

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The Malthouse, Stroud Green, Standish, Stonehouse, Gloucestershire GL10 3DL, UK.
Company number 4070377.
The Arboricultural Association is a registered charity no. 1083845.

Published: May 2023

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