

# The Property Managers' Guide to Green Space Management

Authored & Presented by  
Jeanine Cohen MTPI Assoc RICS

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**A useful Guide designed  
to assist Residential Block  
Managers, Estate Managers,  
Property Managers, RMCs and  
those living in Leasehold who  
manage or wish to develop  
their Green Amenity Spaces.**



## **A Property Manager (PM) already has many demands on their time, a full inbox, a day filled with bread-and-butter management contracts, budgets, invoices, arranging repairs and maintenance, fire, health and safety, and leasehold matters.**

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When onboarding or taking over a site the PM often inherits existing contracts for a gardening contractor. Sometimes this contractor has been in place for years, taking care of the amenity space and, as long as everything is neat and clean, have been left to their own devices. Sometimes, when the requirements are deemed to be minimal this will be the cleaning company who employ an operative with gardening tools.

Taking over the management of a new site will present an opportunity to review the cultural care of whatever grows there to ensure all is maintained and cared for as required. It is also an opportunity for the manager to ascertain the feelings and wants of the residents. More about this in later chapters.

The purpose of this guide is to give you, the Property Manager, an opportunity to look at and review your amenity space, to identify issues and to consider its potential as a valued green amenity for residents. The guide covers many elements found in green amenity spaces and provides a basic resource to assist you in its care and maintenance, and to offer ideas if there is a consideration to reorganize or redevelop your space as the site matures or the needs of the resident population changes.

*This guide is not designed to provide or replace expert advice.* It discusses many issues affecting a site's green management, and what can happen if requirements are ignored. It comes from the author's love of all things green, the study of horticulture and plants and planting design, and decades of experience in Block management including refurbishment projects of all types of green spaces.

I hope this guide will enable you and your respective stake holders to look at your space with fresh eyes, to ask the correct questions of your incumbent contractor, and where there are challenges—which will often be the case—to seek advice and assistance from the correct and qualified experts and specialists.

Photographs illustrating different types of green spaces in this Guide have nearly all been taken with a phone camera and are not professional photos. They have been taken at different times of the year sometime over the span of years showing real conditions. In Britain, gardens traditionally peak in June–July depending on location. There is great potential for working with nature and incumbent conditions. Small changes that can extend interest through all seasons will also act to enhance surroundings and contribute to making ecological and biodiversity improvements.

Good luck and wishing you all good and green things from one colleague to another.

**Jeanine Cohen MTPI Assoc RICS**

**Green Spaces Consulting Ltd**

[jeanine.cohen@icloud.com](mailto:jeanine.cohen@icloud.com)

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# INTRODUCTION

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Purpose built or converted, commonhold or leasehold, build-to-rent, retirement or University accommodation, over 4.5 million flats/apartments are located within vastly varying types of constructed developments in England and Wales. Many are fortunate to have green or potentially green amenity spaces.

With more high-rise buildings planned converted or erected each year on smaller footprints, it is little surprise that outdoor amenity space including green spaces are evermore at a premium.

The type of green amenity space available to residents varies greatly, it could be a grassed frontage and rear garden, a paved space with planters, a corner borrowed by residents with variety of colourful specimens in pots

carefully cultivated, a vertical planted green or living wall, small borders planted with shrubs located between a car park and a building, raised beds, an unloved space with potential, a space overgrown with trees, an attractive roof top garden or even large landscaped grounds with manicured lawns, flowering borders, trees and pretty walks.



The overall appearance, health and maintenance requirements of your green space, it's attractiveness (no matter the size), how well it is utilized (especially if the general public have access), and subsequent benefits to its users will depend on several elements:

- The infrastructure and complexity of the scheme and any safety considerations
- The ability of management to control use of the space
- The level of interest and involvement made by the residents
- The design records, cultural care plans, tree condition reports, asset lists and any warranties available to the Manager tasked with the multiple requirements of management for that site
- The professional horticultural knowledge and qualifications/accreditations of the contractor and team employed to maintain the space
- And finally, the agreement of stakeholders to establish and keep the correct level of investment for care and maintenance through facilities or service charge budgets

A green amenity space whether small or large has the potential to become a valuable asset and can add value or impact the sale of a property. It can be an attractive bonus to downsizers, but if the space is not maintained or is overgrown, can reduce it's 'kerb appeal' and can put off potential buyers. If it includes some loved greenery and usable open space, it can provide a welcoming outdoor space for fresh air and pleasure to the users.



The potential in terms of benefit to the personal well-being of residents and users of all generations cannot be underestimated when the design and layout meet their needs.

For those living in the built environment and lucky enough to have had access to enjoy external green spaces or river walks during recent lockdowns, the positive effects and benefits on general mental and physical health and well-being have been clearly documented.



# DESIGN AND OPTIMAL LAYOUT OF SPACE

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In traditional residential gardens the majority of space would be behind, surround or be to the side of the building. The garden might be enclosed with some sort of fence, wall or hedge, giving some privacy and within a mixture of hard and soft landscaping features.

Dependent upon how big the area, and how it is planned to be utilized, the optimal landscaping layout might be divided into 1/3 and 2/3rds, either hard landscaping with plants and or lawn areas or vice versa.



A well-designed amenity space changes through the seasons and its greenery provides seasonal interest. A planned amenity space will also usually be designed to utilize space to the optimum and be clear about its purpose.

Garden planted in 2022 (May 2023)



Gardens can only thrive and grow well if they get love and the correct attention. Every type of garden has its seasonal requirements, it involves much more than mowing the lawn, blowing away leaves and trimming hedges.





Over time gardens and their uses change. The lovely tree that was planted close to the house has grown immensely over decades. Perhaps its large branches now throw large shadows and leaves clog the gutters. The multi-purpose lawn utilized by children to play has over the years become compacted with bare patches and weeds. In the borders, worn out flowering plants no longer provide a show. Overgrown shrubs fighting for space, bramble and weeds growing in large gaps of hardened, bare soil. Perhaps the fence panels need repainting or replacing, or brickwork is moving within perimeter walls, as tree roots are lifting their foundations. Perhaps the patio is stained and needs cleaning, weeds grow through the paving gaps. Managers may recognize elements here in the spaces they manage, or you may recognize these elements in your own garden.

Looking at the elements that you have, understanding and putting a plan together of how to manage the requirements, will yield the results and in the long run, and being on top of these requirements is vastly more economical and rewarding to the users than slow decline or neglect and having to start again.

Because no site is the same, this guide can only generalize about the layout the possible components making up your space.

# A SHORT HISTORY OF THE ORIGINS OF OUR PLANTS AND EDIBLES

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Gardens started as places where food was grown. Nearly everything had a use, be this as a seasonal salad or root crop, hops for fermented drinks, fruit trees grown for fruit and to make cider, seeds and nuts, aromatic plants, herbs or medicinal plants. Many of these foods were dried or preserved and stored to provide sustenance in long cold and hard winters.

As wealth increased and where space was available some plants were grown for their ornamental value, or their oils for scent, creams and lotions. From Elizabethan times onwards through influences from Europe and Iberia, the establishment of ornamental gardens alongside food production with separate distinctive areas began to be prevalent amongst the wealthy, especially in palaces and stately homes.

In 1550 there were 36 known species of non-western European plants in England. By 1700 around 239, and today over 2,000.

## The Positives

You may not be surprised to know that the plants, trees and shrubs you walk past on a daily basis, or those planted in hanging baskets or the houseplants grown on your windowsill, often originate from far-flung continents. A few plants are known to have arrived with the Romans or other Invaders more than a millennia ago. Other plants gradually from the 16th century onwards brought in by merchants, diplomats, sailors, and latterly plant finders.

Royal palaces and country estates supporting hundreds, or thousands of people required expansive and organised food-producing gardens, often protected from wildlife and winds by walled gardens. Later, advances in production of glass and metal framework, enabled the building of elaborate greenhouses with windows for light and warmth and later heating to grow more delicate and exotic plants, soft fruit, pineapples and melons.

Royal and aristocratic foreign alliances, well-funded Georgian, Victorian or Edwardian plant hunters and immigrants have all contributed over the past 500 years or more to bring further diversity to our food and green landscapes.

From the humble potato and tomato, the salad leaves, the herbs and spices, sugar, chocolate, fruits and vegetables, tea and coffee or grains and pulses and which we take for granted today, nearly all originated from overseas. Many of the plants and trees we have grown up with and love, came from remote, desolate, difficult and sometimes hostile terrains. Exotic plants were traded with locals, gathered or smuggled out as seeds or small plants in sometimes extremely dangerous conditions.

Ultimate success in growing these plants or trees has come from trial and error in providing the right cultural care conditions, and in effect mimicking the natural habitat requirements to enable them grow, flourish and produce.

As an example the popular office and house plant Ficus Benjamina (evergreen but not hardy in the open in Britain) is a native to South East Asia and comes from the same genus (family) as Ficus Carica more commonly known as a Fig tree native to West Asia, and which is hardy in milder climates of Britain. In their normal habitat both of these cousins would reach the height of around 4 metres.

Regardless of origin, plants, trees, and shrubs all have individual cultural care needs. This may be a requirement for light or full sun, minimum and maximum temperatures, shade, boggy or moist conditions, richer or grittier free-draining soil. In the right circumstances, trees, beds and borders can be composed of representatives from all continents if they share similar requirements.

## The Negatives

### **Invasive (Non- Native) Plants or ‘The Bullies in the Playground’ & Proliferation Of Pests And Diseases**

Britain continues to have a high dependency on the import of non-native seeds, plants, trees and grasses. Few British nurseries have the capacity to grow a wide range of plants, trees or vegetables, nor have we seen any recognition of these issues from government, or much investment in encouraging local nurseries to expand.

Even with improved levels of hygiene, testing, and inspection requirements, imported plant specimens have become hosts to unwelcome and invasive insects or viruses, and which have caused and continue to cause devastation to some of our native species of flora and fauna. Tourists and returning holidaymakers have also brought in or by other means contributed to the import or spread of these pests and diseases. Today, swathes of cherished species of plants and trees that originated from other continents along with some of our native species are under threat.

We have to recognize some more serious results of the import of attractive and exotic specimens over a few centuries. Some of these plants may today be classified as a nuisance, some are classified as invasive and subject to control and eradication requirements.

Common Ground Elder is a bane to gardeners, and effectively covers the mainland on the British Isles. It was brought in and cultivated as a salad crop by the Romans. It flourished under the richer and wetter conditions, reseeding and spreading across the land over two thousand years. This is deemed to be a nuisance.

Victorian plant hunters brought in many now-popular trees and plants which have enhanced our green spaces. Some examples (and there are many more) such as Japanese Knotweed, Rhododendron Ponticum and Himalayan Balsam have become environmentally destructive and are classified as invasive.

Some outgrew their space and have become invasive on land and by water in these Isles. These often fast-growing plants have no natural predators, climate restrictions or other topographical terrain barriers which would be found in their original habitat and restrict their growth.

Further information can be found in the Chapter about invasive plants.

# CULTURAL CARE PLAN

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What is it and do you need it?

Employed contractors are often time poor and left to their own devices on unmanned sites. If there is a gardening contract in place it may include a standard 22–24 visits per year. However a contractor will often attend to carry out ‘Mow and Blow’, i.e. cutting the grass and blowing away leaves, perhaps some weeding or hedge cutting with little or no actual other planned gardening, or plant care regimen.

Having a bespoke plan of the annual maintenance requirements specifically tailored for your Green Amenity Space will prevent many issues in the future and ensure your site is maintained properly.

If you are managing a site which had an original layout and landscaping or planting scheme you may have access to the map and location of the plants and trees in the beds and borders, with a corresponding list naming the different species and types of plants and trees.

The care and maintenance requirements may be available in the form of a spreadsheet, broken down by month, showing the type of plant/tree, it’s location and frequency of care. This assists the manager to set the specific requirements of the gardening contract and should prompt the gardening contractor to quote to provide all the service and maintenance requirements for your site.

This information is not always available, especially when sites have evolved over decades, and unless the Gardening Contractor and their employees have a horticultural background, there is a risk that only basic maintenance services will be provided.

Over a twelve-month period, your space requires different types of maintenance and care which needs to take place to every planted item to ensure optimum level of care.

In simplest terms two separate sets of care requirements can be made:

- Arboricultural – that is a Tree Survey identifying your Trees by species, location and they will be identified by number. The survey will include their condition, whether they have Tree Preservation Orders, and an accompanying schedule advising the recommended cycle of care for each tree.
- A cultural care plan including a general plan of your borders, description of the plants and trees planted in them, and a separate schedule setting out their seasonal care requirements.

This list will vary but may include all necessary cycles of pruning and hedge cutting, lawn care and grass cutting, dead heading of flowering shrubs (such as roses), selective thinning out of any fruit growing on trees and weeding.

Evergreen trees and shrubs require different pruning times according to their origin (Spring, Summer, Autumn or Winter flowering) to those which are deciduous (which shed their leaves and become dormant in Winter).

Whilst these plans or Surveys may initially require additional expense, the information contained enables the managing agent to plan Budget expenditure priorities. Such surveys and plans can offer real assistance in identification of damaged trees and plants, invasive plants, areas affected by pests and diseases and areas which require specific care.

Planting plans and wider advice are also of assistance if an area is to be refurbished after loss of trees or shrubs.

When there is a consideration to plant new trees, shrubs, plants or even grass, it is important to consider many different factors.

These include light levels and sun (*The Aspect*), heat, rainfall and the soil type (*PH and its composition*) and disease resistance.

Information about the soil type—whether the soil PH level is acid or alkaline—and its composition—sandy, clay, loam, etc—will be a guide as to the species of plants or trees best suited to the location and its specific conditions.

Consideration to plant different shrubs and plants must identify any species affected by or possibly prone to prevalent pests and diseases.

Understanding that pathogens or the cause of the demise of plants which have perished or have been removed may still remain in the surrounding soil will contribute to good hygiene, and the correct measures to be taken to prevent any issues with their replacements.

Grass also requires specific care further elaborated on in the Chapter on Lawns and Grass.

If the grounds under your management include pathways which require periodic cleansing, (light coloured pavements require highest frequency cleaning) you must also consider how this is to be done, firstly to protect the paving and its joints, and secondly to prevent steam or chemical damage to your lawn, grassed areas or planted borders.

# UTILITY PLANTING – THE ART OF USING HARDY SHRUBS & PERENNIAL PLANTS, TREES & GRASSES

August (will look similar for most of the year)



*The above picture illustrates planting which as it matures can grow into its allotted space, hedging can be clipped and pruned to shape and so that it does not crowd out the grasses.*

Utility planting is a term used often for the self-same trees, shrubs, perennial plants and grasses which are planted in communal spaces, such as residential developments, car parks, on streets or outside commercial premises, e.g. supermarkets. They can be planted in designed and enclosed borders or planters and occasionally large pots.

These are often shrubs which ‘do a job’ as they grow fairly quickly but are not invasive, and are not overly fussy in the environment they are planted in. If given the correct conditions they can withstand dry periods, they can provide screening, a physical barrier, they cover bare ground, they are often evergreen, and many can be clipped into shape.

Utility plants placed into a developer’s landscaped area or sometimes at the entrance to a new site or show home, will often be tightly packed to provide almost instant impact. Planting may be on shallow and nutrient deficient ground.

Plants want to grow as they would in nature, if planted in narrow spaces, unless they can be formatively pruned, in the space of a few years they will outgrow their allotted space.



August (will look similar for most of the year)



Illustrations above show a variety of Evergreen mixed planting in different locations, including widely used modern Utility Plants: Pittosporum, Photinia (Red Robin), Cypress, Phormiums (Flax), Hebes, Yuccas, Rosemary, Lavender, all tightly planted into fairly narrow beds. They are all sun loving and tolerant of drier conditions. In nature, some of these plants want to grow to be 2-3 times their current size. Flax cannot easily be shaped without leaving ugly edges and would be aesthetically unacceptable if cut in half. If overhanging a narrow path- may pose issues to pedestrians who then need to edge by due to its spikey sword shaped leaves.

Utility shrubs can be single specimens, or group planted as hedging, if ornamental and trimmed or clipped at the right time of the year, could produce beautiful flowers.

Over time site employees or contractors may continue to water, weed and prune, etc. However, unless a cultural care regime is followed, with annual mulch and replenishment of compost, these shrubs and trees will become stressed and start to be affected by pests and diseases.

This is illustrated below, it is important therefore to confirm the cause, so that targeted treatment can be done.

Note the semi-circular notch bite holes in the leaves. Vine weevils are likely the cause: the adult beetles feed off of the leaves of shrubs such as evergreen *Viburnum*, *Rhododendron*, *Euonymus*. They hatch and are active in the warmer months. They lay eggs in soil or compost in pots, and their larvae grubs will also feed off of the roots of non-shrubby perennials such as *Bergenia*, *Epimedium*, strawberries and *Heucheras* nearby. This can cause great damage during Autumn and Winter and kills off plants.

Once identified, the remedy can be a proprietary biological treatment into the compost or soil of nematodes, and replenishment of the growing medium (compost).



Please see chapter on Pests and Diseases for further examples.



# TRADITIONAL OR FORMAL USE OF UTILITY PLANTING

Formal gardens, parterres, intricate knot gardens and pleasure gardens were once the playgrounds of the very wealthy, designed to make a statement, sometimes causing rivalry and jealousy amongst peers. Many larger estates are now held in trust for the nation. Smaller estates are often redeveloped.



Developers have purchased sites which were once grand family homes or have become institutions. Subsequent conversions may include large buildings, orangeries, stables and barns, all converted to residential flats or mews homes. The



views from the flats over formal gardens may strongly influence the purchase especially where this is a second home, or if the new owners are downsizing from a large house with gardens and wish to retain value and standards.

The grounds may include further leasehold houses or flats which are sometimes nestled among gardens, lakes, grounds, woodlands or former pastures.

Residents may be afforded large established gardens with mature trees and shrubs. The challenge in the design and management of the new layout is how to be sympathetic to the history of a site, and yet make it functional and appealing for use by its residents.



Larger estates where grounds have been retained will require large maintenance budgets. In many areas trees will have Tree Protection Orders (TPO) requiring local authority permission to carry out any works. If the site is Graded or has historical importance, consultation will be required with input from English Heritage and its legislative consultee, The Gardens Trust. It would not be unheard of for the landscaping budget of a site with several acres of cultivated land, formal planted borders, lawns, trees and wilder areas to exceed £100k or more in today's terms.



If the character of a former notable building or estate is retained when converted to residential, its green spaces will likely require a more formal layout. When land is scarce the design and layout will be within more limited confines as designers must also fit in car parks, residential parking spaces, bin and bike stores, and other utility spaces in areas which may have once formed front gardens or sweeping driveways.

Utility plants when used in a formal setting can be regimented and also provide multi seasonal interest.



Evergreen clipped hedges provide defined borders, the right sized plants are put within the planting space, even if the planting dies down, the core structure will remain in the winter.

Annuals or perennials can be 'inter-planted' with bulbs which do not take up very much room, to provide a colourful display from early Spring providing a succession of flowering until late Autumn.

The photographs above illustrate how formal (but labour intensive) utility planting can succeed beautifully when comprehensive care is provided by trained horticulturally qualified gardeners.

# MODERN DEVELOPMENTS & PLANTING SCHEMES

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## Challenges of Plants, Grass and Trees on New Developments

It not unknown for borders, beds or lawns to have been planted in a fairly thin layer of topsoil over buried rubble and building waste materials.

Within 5-7 years to the dismay of the residents and management, the site looks very sad and there is talk of having to replace expensive swathes of failed hedging, lawns, shrubs or trees.

Whilst it may not be possible to excavate and remove rubble, it is possible to mitigate some of these situations and extend shrub and plant life by adding to borders an annual mulch of compost/well-rotted manure and bark chip. Lawns will benefit from treatments such as dressing, scarifying, aeration and re-seeding.



Problems can also be created on new/converted developments where no communal water source/ hose pipe connection has been installed outside or in an accessible place. Contractors may have watered the gardens and trees from hose extensions in the show home or used portable water sources from vehicles. Once the developer sells the last unit and their contractors leave the site, watering may stop. As a managing agent taking over responsibility, it is therefore important as soon as possible and in discussion with any new gardening contractor to identify what is planted, it's requirements and how watering (in drier periods) will be carried out.

*A site in Kent without any communal water, the location is open and sunny. Note how the shrubs (Hebes) are struggling. This picture was taken in August, the tree in the foreground would be aged between 2-3 years but is dying due to insufficient watering.*

It is recommended that to enable trees and shrubs to establish roots they are planted in winter then watered regularly in dry periods into years 2-3. It takes this long for them to establish a root system capable of reaching water. Newly-planted trees may require 50 litres of water per week during the summer months; an average watering can holds between 8-10 litres.



*Illustration left shows a failed tree and another in the background within a fairly new scheme. This picture was taken in August. The cause may be due to several reasons: open and windy conditions, insufficient watering or feeding, encroachment of grass which has competed for water, compacted ground, proximity to another species, etc.*

Newly-seeded or turfed grass also needs to be watered regularly in the first few months unless it is laid in late Autumn or Winter and there is sustained rainfall. The watering requirement continues until it has established roots and, if bordered by trees, or if overshadowed by tall buildings affecting rainfall, during very dry periods.

The managing agent faced with planting failures and failing grassed areas may consider re-thinking the existing planting or whether grassed areas or lawns in that particular location are in fact practical and economically viable.

## **Dry Gardening Conditions**

If there is a lack of a communal water supply, and your gardening contractor does not port water to site, you may also consider investment in collection of water.

If the need for watering is localized, water butts can easily be installed diverting surface water from gutters. Gardeners or site staff can use this during growing seasons to water baskets, pots or new trees. Water butts can be capped off for winter and down pipes can continue to drain as usual. Water butts can also be decorative or installed behind screens. Generally dependency for use of collected water is not sufficient for lawns.

Many species of utility plants will thrive in warm dry conditions without communal water once established. Some will not.



There are many shrubs, grasses and trees whose structures remain in Winter, accompanied by flowering deciduous shrubs, perennials and bulbs which can be used in drier schemes.



# HIGH RISES AND AREAS OPEN TO THE PUBLIC



Where a property's only external space is in a public area, planted areas act as barriers or direct foot fall and can also provide attractive entrances to blocks.

Commercial units on the ground floors keen to attract customers may establish planting areas outside their units.

## Tall Buildings

Newly constructed high rise developments are often condensed into tightly packed areas. The proximity of a high rise building to other neighbouring sites will affect available light and can also result in cold wind tunnels. Tall buildings reduce efficacy in utilization of rainfall to any grassed or planted areas, and in urban areas non-permeable hardcore, tarmacked or paved areas can cause water run-off, sometimes overpowering old drainage systems.

In planning for these areas where we have seen in the past few decades that steady rain patterns have been replaced with heavy tropical type downpours, a consideration should be given to ground drainage with permeable surfaces, and installation of swales.

Whether the choice for some greenery is in large planters or in landscaped areas, high footfall usage will affect cleanliness of pathways, litter, longevity of installed street furniture such as lighting and benches, and subsequently the level and costs of required maintenance.

Large raised planters or pots must have regular watering regimes, by getting onsite staff to employ a hosepipe does not guarantee that sufficient water will be delivered to roots of trees, or conversely overwatering can take place leading to subsequent leaching of nutrients and waterlogging of roots.

An option to secure the health and future of any plants and trees can be by using targeted irrigation pipework on timers. This will conserve water and deliver the correct amount of water to needed areas. Some systems can also deliver liquid feed.

The types of tree, grasses or plants which would thrive in the shadow of tall buildings, and their subsequent longevity are dependent upon local conditions which should be considered carefully.



Bespoke, constructed or purchased, planters and large pots can enhance or break up areas to direct pedestrian traffic and keep entrances to buildings free of loiterers.





Pots and planters should be made of robust materials large enough for the chosen plants or trees. They must be able to withstand weather, staining (dogs), etc. Although subject to littering, the plants in them can have attractive displays of flowers and if using trees tolerant of those conditions can offer some shade into open areas.

The overall care of large planters and pots should include a budget and cultural care plan to replenish the top layer of the planting medium (compost) and application of appropriate fertilizer through the growing season. If planters contain a mixture of shrubs and trees, as well as annual or perennial flowering plants and grasses, periodic replacement will be required. Such large investments should be cared for by appropriately qualified professionals.

It is also important to manage budgetary expectations as the lifespan of container trees may be as little as 10–15 years. This is regardless of whether a tree is planted in a private garden or open space.



Design of outside space and it's uses has changed over time and modern developments pose regular challenges to landscape architects and garden planting designers.

The adage 'Right Plant, Right Place' should always be applied to plans, regardless of whether an annual or perennial display in pots or planters, a balcony display or garden with lawn, trees and borders.



# RIVERSIDE, SEASIDE & CANAL DEVELOPMENTS

Riverside locations and high rise buildings are very attractive to residential developers. Such apartments and flats can be built on a fairly small footprint, remain very popular and have attractive views which will continue to command premiums.



Many modern developments in urban areas include commercial space at ground level affecting easements and right of way to members of the public.

Planning regulations and consents may require the developer to add amenity space accessed by the public or require the developer to add brown or green roofs. In addition, with no garden space the developer may add some form of external amenity space in the building, such as a roof garden for residents.

## Rivers and Waters Edge



As an overview and leading to the challenges faced by management of amenity spaces in these areas, the following is descriptive of urban riverside developments. Managing agents must ensure that they have conformed to all legal and binding title restrictions.

On a riverside development it is usually presumed in law that when the development land title abuts a river or lake bank, its ownership reaches up to the halfway point of the body of water (thereby including maintenance of half of that waterway). A corresponding property on the opposite shore would meet it halfway. However, this is not usually the case when the development is built on the edge of a tidal river.

On a site edging the River Thames, for instance, ownership can only abut the river's edge, and the owner will be required by the Port of London Authority (PLA) to maintain the existing river wall or bank to its lowest tidal point.

On some sites this might include an existing retaining wall several metres high at low tide. The building's residential footprint often cannot be built right up to the water's edge or enclose the area up to the water. Especially on the River Thames many areas pre-existed with established right-of-way towpaths, public footways, or even mooring points. Planning requirements then dictate rights of access at the river's edge, sometimes with paths or access roads skirting or going through the development.

At basement and subterranean levels however, a development may have installed a car park, plantrooms, gymnasium or storerooms in proximity of the river wall or canal. These internal walls should be monitored overtime for structural integrity, and any leaks.



Boroughs in London and other cities are densely populated. The following may also be reflective of other large cities with residential areas located on river sides.

By the river, residents will use available paths to access public transport points. Bikes, scooters, dog walkers, hikers, tourists, and even mud larkers all utilise these tow paths, riverside walks and riverbanks.

Communal planted areas accessed by the public can often appear neglected, and paradoxically are often the areas first noticed when visiting a building. A small investment in keeping these areas litter free and maintained improves first impressions.

## Canal Side Buildings



When a residential site borders a canal, the security needs and management of its green spaces due to its proximity to public tow paths are increased.



The managing agent will also become responsible for trees and hedgerows bordering the canal edge at the property boundary.

A natural barrier of trees and shrubs may afford the opportunity to allow a more relaxed approach to the growth of a taller green screen providing shade and privacy for the flats from the direct view of the canal and its users.

*The canal path is parallel and to the left behind this screen of trees on the picture shown to the left. The screen provides shade and privacy. The screen also shelters from prevailing winds, and as the aspect is full west facing the afternoon sun.*

*The tree cover will reduce the ambient temperature in the Summer months by 10–15°C or*

*more. This is very welcome, especially in a building with a communal hot water and heating system.*

If Planning Consent requires the site perimeter pathways accessed from the tow path to be open to the public, subtle ways can still be found to separate public access and deter casual footfall away from entering the main development areas.





*In the illustrations above the same development has discretely located fencing around the site with railings and fobbed-gate access into the main development. This ensures only residents have access, preventing strangers accessing entrance doors to the buildings from the external canal side. Greenery has also been planted, obscuring fencing to create additional natural barriers.*

Development in disused areas or on brownfield sites can bring with it local issues, and sometimes established anti-social elements.

The attractiveness of building by a river or canal often means that a new development may consist of older elements such as converted industrial or commercial buildings.

The new development's location may also be in pre-existing industrial and commercial areas, or near older housing, council estates or social housing developments.

In some sites the geographical location will require periodic higher requirements for maintenance of external or amenity spaces, additional expenses for CCTV, site staff or security, cleaning or repairs.

These unwelcome costs can generally be contributed to and are affected by opportunistic theft, gatherings, arson or vandalism, graffiti or littering. Those setting and agreeing service charge budgets should be realistic about costs for securing their space.

## Successfully Growing Plants and Trees on Waterside Conditions

Near the seaside, by the banks of rivers and, to a lesser degree on canals, green spaces and gardens can be affected by strong winds, and harsher cold conditions in winter.

If a property is located on a tidal river at certain times of the year the river may overflow at high tide onto the land. Localised flooding can bring water polluted with contaminants.

Gardens with plants and trees in these locations must be tolerant of flooding or water logging for short periods, i.e. in order to thrive and survive. Certain deciduous trees and other perennial plants which die down and are dormant in the winter are less prone to lasting damage if subject to winter flooding.

Car parks, gardens or pathways can be protected by raising their levels, or by the installation of ditches and swales.

Seaside buildings—even those located a few streets away from the sea front—will be affected by desiccating winds, lashing storms, heavy rainfall, and salt spray. This not only affects the external facades of buildings and their maintenance requirements, but also may affect the ability to establish specific plants and trees which can grow in those conditions.



Hedging is very valuable at ground level as it provides shelter from winds. This can enable tree saplings to establish and other plants to grow. Hedging is extremely valuable in providing protected nesting areas for birds. Such green spaces will provide not only a scenic view from a balcony of a tall building above, but also a sheltered space for residents to sit and enjoy.

Design of outside space and its uses has changed over time and our modern developments pose regular challenges to landscape architects and garden planting designers.





*Many types of trees, plants and grasses are especially adapted to these types of conditions and will be successful on waterside and seaside locations.*

# Tidal Rivers and Other Localised Flooding Risks

## Swales

A swale can work in many different types of circumstances and provides a solution to localized tidal flooding, or flash flooding thereby preventing waters reaching built areas or valuable land.

The banks of many sites on river edges in populated areas across the country have been raised over the course of hundreds of years to prevent flooding. However, there is much land whose lower levels remain, and flooding risks still exist.



*A swale planted in a sunken area of land near Surrey on the banks of the River Thames. Planted with wildflower plants which can withstand waterlogging in winter. After flowering, the seeds drop and scatter, and the area would normally be strimmed down.*

*Winter: The path to the right floods from the River Thames during high tides in the winter. The flooding reaches the sunken swale and prevents water traveling further into the grounds and built environment.*

On tidal rivers where the banks are low, or where drainage systems can be overwhelmed on streets or in car parks, it is important to anticipate such occurrences for the protection of persons and property.

Plants and trees naturally absorb ground water when in growth. However, there is greater run off in the built environment where large areas have been covered by less permeable surfaces such as roads and pavements.

In the built environment, such as on streets or a car park, a swale can be a structure designed for water run off at a depth lower than the road surface. It can be planted with a variety of plants and which will be fairly tolerant to pollutants as a consequence from heavy rains and run off from roads and vehicles.

With fewer polluting discharges from vehicles, swales in car parks can also act as green spaces with long flowering or seasonal interest to break up areas and rainfall directed to irrigate these (tolerant) plants and trees.



# COMMUNITY SPACES

Spaces which are designed, evolve and where communities can come together.



## Roof Gardens and Large Balconies

The following discusses possibilities for roof gardens or large balconies, whether used by the residents, the public, or private ownership.

Modern designs in high rise buildings with limited amenity space afford developers the opportunity to provide external or even covered spaces for residents, sometimes on flat roofs. Otherwise these would not be utilized and yet may still be overlooked from residential units located above.

The available space and designed layout, and whether it is sheltered, will all determine what use and how often it is utilized and whether this can be a welcoming communal space.



If a roof garden is designed for the residents (or a penthouse balcony has sufficient space) with the intention to provide living greenery as enhancement, or as shelter or wind barrier, the installation must adhere to any weight and displacement restrictions for plants and trees. The materials used and corresponding

weight of pots and raised planters is another factor. The growing medium used (compost, lightweight filler, perlite, etc) and mulch or gravel must also be included in the weight restrictions category. Weight displacement will also include the number of users at any time.



*A beautiful roof garden in a residential development in Hertfordshire. All planting is evergreen. Pots and planters are of lightweight materials.*

Watering regimes must be controlled. Investing in the installation of an automated drip system or seepage irrigation pipework on timers is the preferred option, rather than using a hose pipe, as incorrect levels of delivery of water to the plants may cause stress to the plants as well as leaks. A plan to divert rainwater from drainage into water butts should also be made as plants prefer rainwater. Water butts can also be decorative.

Residential units or offices beneath can be affected if using a hose pipe to irrigate or if the plan for cleaning the decking/flooring involves jet washing. Steam cleaning may be the better option. Drainage channels often hidden beneath decked flooring must also be periodically cleaned to prevent debris build up, so it is important that the maintenance contractor or the resident leaseholder have access to them.

Managers should be aware of The Building Safety Act, Fire Reforms 2022, with changes to legislation. Communal roof gardens and private balconies with wooden deck flooring (regardless of height of building) will be classed as combustible. As a potential fire hazard, it is also known that some buildings insurers have removed cover for any fires caused by smoking or barbeque equipment where the material decking is made of wood. The managing agent must therefore communicate the importance to residents and police these factors in buildings with balconies.



*The above roof garden on floor 26 of a high rise building in London (composite decking) is affected by prevailing winds thus requiring the tethering of all of the furniture and cushions. Although this is a sun trap, it is problematic to install sunshades or parasols due to the fierce winds. No wind barrier has been installed. There are spectacular views which are one of the main attractions to its use.*



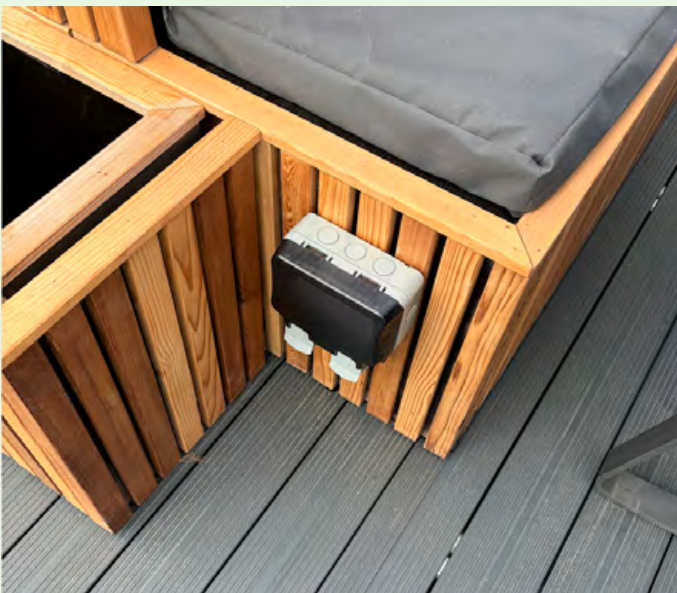
Open-aired roof gardens and the people using them are often at the mercy of the elements. Dependent upon aspect either very sunny or very shady and cool. Such places could be attractive to short lets and non-residents and it is not unknown for inebriate behaviour to become hazardous to pedestrians if bottles or litter are dropped from height, or users become a danger to themselves. A roof

garden may have CCTV but if the site is not monitored or manned 24 hours per day, there are limits to control over access and safety. On an unmanned site the managing agent may consider installing fob access to the area on timers.

If strong winds are an issue, doors to the roof garden must also be able to withstand gusts of wind.

## Design for the Future

Both leasehold and BTR developments with planned roof gardens can expand provisions to serve modern requirements of their residents by providing fully functioning community amenity spaces.



Above: The developer has designed the space with the option of putting outside screens for Films and to plan other social activities to build community cohesiveness. The roof garden is Wi-Fi ready and provides charging sockets. Designed with consideration for Work-from-Home, the layout and furniture of the roof garden is set up for this option, with desk height tables and seating. Occasional or after hours gatherings can also utilize this format.

Site management will consider any noise disturbance to nearby residents and set opening times. They will also consider the maximum capacity and cultural rules of use. It may also be necessary to offer bookings for working space if there is a demand on limited seating. When clearly advised in correspondence and notices to the Residents, respect for the space and adherence to its regulations will usually follow.

A well -designed roof garden will have appropriate wind shelter. Its furniture and soft coverings will be secured and waterproof. Whilst many roof gardens are not amenable for all-year use, on dry mild days they may still offer a valuable space for residents to enjoy regardless of season.

## Management of Green or Brown Roofs

Planning requirements for construction of new Developments in Urban areas may have included a requirement for a green roof, for renewable energy via solar panels or even a brown roof.

There are contractors whose specialty is to combine the gardening maintenance of green or brown roof spaces at height, and their operatives have been trained and insured to use man safe systems, abseiling or other means of access at height.

Maintenance may require planting, thinning, weeding and removal of green waste.

## Brown Roofs

Are not usually designed to be utilized as an amenity and may be located where there is no resident access. Its purpose is to recreate brownfield, weedy or sparse growth conditions in order to replicate lost habitat. Some London Docklands developments have brown roofs designed to replace nesting sites for specific birds. A brown roof still needs to be maintained periodically to serve its purpose and any planning requirements.

## Solar Panels

Green energy solar panels are a more recent endeavour, often subject to planning consent in new urban developments. Green and renewable energy is also catching the imagination of many Freeholders & Leaseholders. The following may be pertinent to a new manager:

- Has the system actually been commissioned? Is it online and has the managing agent received all warranties?
- Does the system actually feedback energy to the grid via identified meters? Does it offset communal usage at site?
- Is there a contract in place for annual inspections, maintenance and certification of any electrical equipment?

## Green Roofs

A green roof may be a requirement of planning, either covering a flat roof or installed beyond the edges of residential balconies. The green roof should be installed above a watertight roof surface, it may be planted with a low-growing mix of drought-tolerant plants or perennials and grasses. It may have been designed with irrigation pipework and pumps which require periodic maintenance and inspections.

A green roof should be maintained by a specialist contractor under an annual contract with visits occurring at least bi-annually. The roof should also be surveyed periodically to ensure the roof fabric material is intact and waterproof.

Managers should follow up any signs or complaints from flats directly below in case the roof fabric below a green roof is no longer watertight, it is not unknown for larger birds to peck through layers of plants or roof insulation to line nests.



Wear and tear or defects in the roof fabric, defective watering systems or clogged drainage may be other factors.

Green roofs are not always planted for 'roof garden enjoyment use' by residents.

Flat roofs are not always constructed for residential use, hanging of washing or as smoking corners. A tear in the waterproof membrane will in time lead to an expensive repair.

In the case where a green roof is not designed to be accessible, the manager may face calls from residents to remove maintenance services from service charge costs as they deem it to have no benefits of enjoyment.

It is important to explain three things to the residents: (i) the green (or brown) roof exists due to planning requirements, (ii) the construction of the flat roof is not designed for frequent foot traffic, and (iii) the result of removing a maintenance contract for a green or brown roof will become evident within a year or two and will ultimately lead to overgrowth and more serious issues.

Growth of plants and seed dispersal may reach other areas, clog up drainage and even grow over man safe wiring which cannot then be certified.

When a green roof is neglected it will have much higher cost implications to the building in the long run.

Unless designed for public use, its access must be limited to inspections, and maintenance by insured and qualified contractors.

# Community Gardens

Making the best out of your space.

Leaseholders and Tenants may have downsized from Houses with gardens but their need to nurture and grow plants, flowers, even vegetables and herbs does not diminish.

Such green fingered residents can be found in Retirement communities, Residential Developments, RMC's, Social Housing or even Maisonettes with shared gardens.

In a Retirement community for instance, residents may not physically be able to maintain gardens but are still keen to keep their hand in, and if space is at a premium, a popular option is the growth of Herbs and Annual flowering varieties.

Many Leasehold Blocks have open spaces which are under a Freehold title, or Maisonettes with allocated garden space to the front or back.

When individuals of a community begin to extend into, or take over communal space, the Managing Agent/ Landlord will need to set ground rules as early as possible. This should be in a pragmatic way aimed at working with the residents to provide permitted means of use, where and what they are allowed to plant.

If an organized and uniform appearance is desired – then the Landlord and Managing Agent should consider the option of provision and installation of raised planting beds, and any other facilities needed (small potting tables or green house, water butts, framework, pots) etc



Trees or Shrubs planted by residents should not outgrow their space or become a nuisance. Forward plans for their care and maintenance should be agreed. The installation of long lasting Planters for instance can provide accessible areas for residents to grow things and can maintain their purposes in the future should care by the residents fall away.

Where there is opposition from other leaseholders to expense, often those who wish to develop planted areas will agree to fund this themselves.

It does happen that green fingered residents move on. If an organized space or planters have been provided, the area can still be repurposed and brought under the care of the site's gardeners rather than be left to neglect.



Management oversight of communal spaces should avoid unplanned areas or a free for all and prevent the establishment of a plethora of plastic pots, sheds or other construction on communal land and which may detract from gardens in use. It could also prevent the Landlord or managing agent becoming open to litigation by other residents and prevent health, and fire safety challenges or Building Insurance issues.



*The above is a Sixty Flat Retirement Development with resident Warden, at a Seaside location on the South East Coast. The frontage and sides have small structured cultivated areas, taken care of by gardeners in a perfunctory and regimented manner. Most of the Utility shrubs are pruned without allowing them to flower.*

*The shrub borders need annual mulching/ topsoil replenishment, and the grass appears to lack annual care.*

*Shown in late August without any rainfall for at least 4 weeks the lawn is crisp (cutting length too short for dry conditions) and ground is dry. Residents occupying the ground floor apartments maintain their own planters and pots outside their patio windows.*



*At the rear of the building where the rear entrance is located and in the car park, residents have appropriated space and installed a small outside seating area and the borders along the car park to plant their own seasonal flowering annuals.*

*Over time Residents have also purchased and installed water butts. There are some garden tools stored in the 'bike' shed, which is more appropriately used for mobility scooters.*

*The Development has a haphazard visual optic, and the managing agent might consult with the residents to provide a more organised area or areas for them to nurture.*

## **Courtyards**

Many sites have smaller limited spaces or even 'dead areas' which consist of concrete pathways and walls.

Some pots or planters to liven up these areas and give them life are often very welcomed.

At a small Development in London, RMC Directors were very keen to make meaningful use of their limited courtyard space sandwiched between two buildings. They joined together with other green fingered residents and formed a gardening committee. A small amount of the building budget was agreed to be used on infrastructure for raised bed areas (untreated sleepers), composting areas and rainwater collection. Residents bought seeds, organised rotas and shared the many different jobs involved in growing seasonal vegetables, and when crops were ripe, shared the produce as a community. Space remained in the Courtyard for shaded seating for other residents who were not interested in the cultivation side of things. This fostered a positive community vibe in this Urban Building.

## Case Study

The Courtyard Project – Refurbishing and reorganizing existing space and reducing unwelcome noise/ traffic by children.

The pictures below are before and after pictures of a Courtyard garden in a Town in Kent, a Twenty Year old Building at the time of the project, with four stories, this site bounded a number of busy roads and its only amenity space was an internal shared Courtyard garden.

In this secure Courtyard area parents left their small children to play, sometimes unattended, and subsequently their rambunctiousness led to complaints to the Managing Agents and disputes between neighbours.

The space was being used to run bikes and scooters up and down disturbing other residents, some who lived in Flats on the ground floor, others living above, and based on the complaints, affected the quiet enjoyment of the space.



Initially the Gardeners moved some of the pots into the middle of the pathways however small scooters and bikes still got through. Polite notices and letters to residents did not resolve issues.

Although visited by a gardening contractor, over the years many of the planters and pots had through age and wear and tear broken and subsequently a matter of time before the shrubs and plants in them would fail. Water was available for the internal courtyard.

There had been little investment in the Courtyard for many years, and when the site was built there had also been a water feature, it broke down at some point and found to be very expensive to reinstate. Initially meetings with owner occupiers were carried out to gauge interest, and then a general plan was made as to the options to replace the many broken planters with large planters. Varying materials were considered in order to estimate costs. Costs not only included the Planters themselves, but manpower, materials, compost and plants.

After plans were submitted, agreement with Leaseholders and the Freeholder was obtained to spend around £6.5K from the Reserves to refurbish the space. Informal consultation with leaseholders was appropriate in this case as the estimated costs of the project fell below the threshold of S20 Consultation.

Made to measure planters were designed and purchased from a company whose work the Author had seen, (Woodbloxx) and which were delivered to site in kit form. The Wood is sourced from sustainably grown forest Trees and is supplied with a 15 year warranty. Woodbloxx also generated different design options according to space available and advised the correct volume and capacity for each Planter. This enabled the planning of the correct quantities of compost and mulch to order. With a several week lead in and delivery time, the planters took two working days to construct and line, they were then filled and planted. This work was carried out by the Author (worktime donated to the building) and gardeners x 3 (time paid).

The Planters were interplanted with some salvaged plants, and other perennials, grasses and spring flowering bulbs purchased at a local garden centre. Additional gravel was purchased to cover any bare ground. One planter in the sunniest spot was given over to culinary herbs for the residents to pick and come again.

The project was carried out in early summer.

Some of the larger pots were replanted, or their compost replenished and relocated within the garden, generally on the pathways previously used by the children to race.

The benches in the Courtyard were also refurbished, they were relocated into separate areas and which effectively completely resolved the traffic of children, giving the area a more welcoming and communal feel. Paving was jetted, and a longer term plan was to steam clean the whole area.

Feedback was very positive from both owner occupiers and Leaseholders renting out their properties, and who were all updated during the process with correspondence and photos.

This project was carried out before the Covid epidemic and lockdown.

After



# GREEN OR LIVING WALLS

## Living Walls- Vertical Gardens in Limited Space



A living wall can be a vertical framework structure tethered to a wall, as part of a cladding system for a building or even a wall or fence which has had climbers supported on framework and planted into troughs or the earth. Normally when part of a building structure a living wall is planted with evergreen plants, in a planting framework of troughs or pockets whose planting growth disguises, it has an integral irrigation system and when it has been designed as a green thermal wall against a building wall it can reduce building surface temperatures and provide visual beauty and ecological benefits.

Over the course of the last 20 years the designs of vertical wall systems have evolved greatly, Companies in this field have continued to develop and evolve their Designs and installations on from less sustainable and expensive tiny annual planting pocket type systems to larger sustainable troughs with longer lifespan to perennial plants.

During the course of their career few Property Managers will be tasked with the management of large constructed Living Walls, however Managing Agents should ensure forward planning as a lot can go wrong with them.

Stakeholders should be aware and understand that Living Walls which are constructed, require adequate budgets to employ suitable contractors tasked with dealing with all mechanical systems (Irrigation systems, Pumps, Water sampling, PAT Testing, etc) and also specialist qualified gardeners to maintain the planted elements, set irrigation requirements, refresh the compost and trim or replace plants as required. Sometimes all these elements are dealt with by the same specific design and installation companies who offer ongoing care and maintenance.



It is not unknown that when a system like the automated irrigation fails, if the site is unmanned/unmonitored or there is no alarm system connected to the managing agent/out of hours, whole planted sections of walls, sometimes tens of square metres can be damaged or fail by either lack of water, or the plants roots waterlogged and drown due to too much.

There can also be fire safety implications if living materials dry out and become combustible.

A constructed living wall must be viewed as a long term investment with adequate budgeting.



*Illustrated left is a pretty commercial scheme in Central London (4 Stories) on a corner with two streets. It must be maintained by a specialist, there will be an automated irrigation system installed behind the structure also enabling the delivery of plant feed. Even where there is irrigation some plants may still fail as evidenced by the window boxes. It is planted with a mix of evergreen perennial plants and grasses which would normally not grow more than 30-40 cm and have fairly shallow root systems. Construction of this wall may have required Planning Permission and subsequent access to maintain this wall is likely via a scissor lift from the busy street with associated over sail licences. Normally Abseiling is not a suitable access means for maintenance of living walls.*



Literature has been published highlighting the risk elements of the large constructed new living walls which are replacing cladding in some developments. Whilst these can insulate buildings and contribute valuable microclimates and ecological benefits, all factors of risk should be considered and those tasked with maintenance be aware of.

More reading - *Green and Living Walls as External Cladding-A joint guide to managing risk. Published 2024 by [The Fire Protection Association](#) & RISC Authority whose membership numbers many UK Insurers*

## Vertical Green Walls

This is often a lower budget option and can be achieved where space is at a premium.

It is possible to create a vertical green wall if there is sufficient planting depth and space from ground level. As long as the plants have a framework to climb up against a structure strong enough to support weight, there are many suitable evergreen plants & deciduous climbers which can enhance a sunny or even shady area.



Ground preparation and nourishment is important and a barrier from grass which might encroach. Another possibility is the installation of planting troughs/ untreated sleepers with appropriate soil (John Innes No 3 is the best). These plants will still require adequate watering regimens.

Some Shrubs with flexible stems can be trained vertically, Fruit trees such as Apples or Pears can be trained or a mix of Evergreen and Deciduous plants scrambling up a framework can happily thrive together and give a flowering show over several months and even in Winter.

Climbers can take a number of years to grow to height and fill out their space, planting too many in restricted space will result in poor show of flowers due to overcrowding and planting too small specimens will show sparse growth and not achieve a green wall to its height for a number of years.

Research is important into spacing per metre as one size does not fit all.

Whilst comprehensive watering systems such as for Living Walls are required, thought should be given to provision of sufficient watering for a vertical green wall either on an automated basis, seepage hosepipe work or irrigation pipework especially if the length of the green wall extends several metres.

To improve aesthetics, ground level bare areas can also be underplanted with small annuals or evergreen perennials. Their foliage can shelter the base of the roots and keep them shaded thereby conserving moisture, and which will not encroach on the climber's root system.

There are a multitude of different options available for vertical wall spaces and can enhance views and also provide habitat for insects and birds and season by season reward residents with flowering displays.



The above and left are pictures of a newly planted Gabion Wall constructed against a commercial building which also has Bird and Bat boxes in a conservation environment.

It was planned so that in future years the climbers will cloth the wire framework and provide food and shelter for the nesting areas for Bats and Swifts. The climbers are hedgerow type plants producing flowers and berries.

# LAWNS – FORMAL, RELAXED, NATURALIZATION, WILDFLOWERS



Lawns are comprised of different types of grass usually made up of various species of Bents, Fescues and Ryes in varying percentages. Some mixes are designed to provide more tough wearing surfaces for heavy use. The grass used for a bowling green, a residential garden lawn, and cricket, football or rugby pitches will all be very different in composition and require different levels of care.

It is advised to consider the purpose of your Lawned or Grassed areas, how formal they are to be, if areas are to be set to meadow or have more relaxed growth. How much foot traffic or public access there will be?

Without correct care, lawns will also develop brown patchy dead areas as thatch (dead grass) inhibiting the growth of new grass blades. Where there is footfall, if the ground has been allowed to become compacted it will affect the ability to absorb water and lead to bare areas.



Dogs (especially female) will urinate causing brown rings because their urine contains high levels of nitrogen, this kills off the grass if untreated or washed/flushed away with water.

As male dogs usually cock their legs against something, damage may be caused to your ironwork benches, lamp posts or lighting which erodes or your walls becoming stained.

## Formal Lawn



If the requirement and wish of the residents is to have formal stripped or traditional fine clipped lawn the cutting regimen must be aligned with growth. A regular watering regimen must also be put into place for drier periods. At its edges where it meets brick or concrete verges it may become dry and compacted and will not take up water – the ground therefore should be de-compacted in the winter, a dressing applied and re-seeding.

As mentioned before if Dogs (and Foxes) have access to the Lawn action must be taken to wash or flush away any urine.



The illustrations above show lawns which have been maintained by a professional landscaping company and watered regularly in dry periods. In the areas where grass growth is struggling the ground has become compacted leading to difficulty in water uptake. Aeration (the punching of holes with a machine or pitchfork to allow oxygen into the hard compacted ground and scarification (the raking off of all thatch/dead grass) is needed, and once done a loam dressing should be applied, and the area re-seeded and watered. Optimum time to do this is in Autumn.



The above illustrations are of a development on a Marina waterside where no communal source of water was installed. During the warmer months the grass should have been left to grow longer as it struggled to get moisture to its roots, the aspect is South facing in full sun, and affected by desiccating winds further drying out the area. Please note on the upper right hand picture the success of the Utility planting (though tightly packed) on another south facing side of the Development because it is suited to the conditions.

Due to the changing environment and climate over the past few decades, growing seasons have been extended and the traditional first cut of your lawn may be required earlier and the last cut of the season much later into the year. The gardener may well be putting the garden to sleep for winter much later depending on your area, and grass may still be growing into December.

Many standard gardening contracts have not adapted and are still in the range of 24 annual visits for grass care. In addition many contracts do not include weeding and feeding, aerating and scarifying, dressing and re-seeding. By not including these items the health of the lawn will deteriorate, and this will lead to poorer aesthetics and outcomes within a few short years.

It is worth investing in an evaluation for formal lawns, specifically to include annual nurture requirements needed to preservation of the optimum condition, appearance and health of a formal Lawn – including weed and feed, aeration and scarification – keeping the lawn free of thatch (dead growth).

If your gardening contractor has horticultural qualifications, they should be able to add all the required grass treatments to ensure your lawns remain pristine. If they do not offer, then there are specialist companies only providing the above types of services such as Green Thumb or Supagrass (other companies should be available in your area) who can be engaged separately, will visit a number of times during the year to carry out different treatments as the cycle of care requires.

There is often no need to go to large expense to completely strip and re-lay a lawn (and which would possibly require new dressing of a loam base and then regular and prodigious watering) if your lawn is put under the correct plan of care and maintenance.

## Relaxed Cutting, Informal and Meadow Grassed Areas

Where there is no requirement for manicured lawns or where grassed areas are used for play, the informal approach can provide the opportunity to enhance nature and save on resources.



There is a growing trend in allowing the growth of grass in a more natural way, relaxed grass cutting routines, establishing wildflowers all benefitting nature and reducing maintenance requirements.

This more relaxed approach can add beauty- who does not smile when they see an abundance of spring flowers? it is friendly to nature, reduces water run-off, and can in the long run reduce mowing maintenance costs.

Even smaller sites can help with later grass cutting starts i.e. 'No mow May' then the grass is completely strimmed and mowed, giving the area over to normal use.

Some different options are explained below:

# Naturalization

## Bulbs



If it is possible to allow the Lawn or even some grassed areas around Trees to remain sectioned off and uncut until around the end of May or even June, it is possible to have a continuation of flowering bulbs which have been naturalized into grassed areas. They will grow through grass from January into June and will provide a welcome splash of colour. If the grass is short in December those bulbs small in height such as Crocuses and snowdrops will appear in January and February, then daffodils and tulips from March to April to match the growth of the grass, with taller specimens like Fritillaries, Alliums and Cammasia coming through the growing grasses by May or June

Naturalizing bulbs does not have to be expensive, smaller bulbs can easily be planted from September to Winter with bulb planters lifting grass plugs or by lifting and relaying small areas of turf.

After flowering areas should remain undisturbed until bulbs have been able to die back down, which usually takes about six weeks after flowering finishes. Areas can then be strimmed and used as normal.

Bulbs which have been allowed to establish will usually return year on year. They can include Crocus, Snowdrops, Hyacinthoides family including Muscari, Hyacinths and Bluebells, Daffodils, Wild Tulips, Irises, Fritillaries, Cammasias, and Alliums.

Bulbs provide a welcome splash of colour and interest, provide valuable nectar to early bees and pollinating insects, and will also in turn attract small birds. The corresponding uncut grass preserves moisture in the ground for longer benefitting other plants and trees.





## Wildflowers

Leading on from Naturalized areas it is also possible to continue the season with wildflowers. Grasses should not be strimmed down until at least late August, leaving wildflowers to set seed.

If planned properly, correct seeding and selective weeding will result in beautiful spring and summer displays.

If there is space to develop a wildflower patch or meadow, then preparation is needed before wildflowers can be established.

If changing the use of an existing grassed area or lawn, this would include Scarification in late Autumn of areas to allow the seeding or plug planting of specific wildflowers in the first year to two years.



Generally, by just leaving regular grasses to grow long, would not result in a wide variety of species of wildflowers, as thug plants (that we call weeds) and grasses would choke them out.

The appearance might also resemble the neglected type of area where there is no gardener and if open to the public eventually become full of litter and fly tipping. It is important to consider this and perhaps put up signage to notify that the area is being turned over to meadow or wildflowers.



*The above illustration is of a Residential development in North London bounded by public roads and footpaths. Residents returning from errands have continued to use short cuts by trampling through the uncut grass (Desire lines). It might be practical to mow pathways through this field on the desire lines.*

There are plant varieties to suit most conditions including wet or boggy areas, swales (areas which may be near a river or canal and flood periodically) dry areas and sandy areas.

It is recommended that some research is done as to the local geographical and environmental conditions and traditional species growing in your area.

Consultation with a horticulturally trained gardener or specialist can provide advice about best practice to succeed. Please consult if the same areas are to be used for the Naturalization of bulbs.

## **Substainability**

### **Thinking about the birds and the bees**

In larger landscaped gardens there is great potential to review current planting schemes and develop a greener more sustainable approach enhancing environmental benefits to wildlife, birds and insects etc

We have discussed the potential of converting lawn areas into relaxed mowing areas and after seeding promoting the growth of wildflowers and taller grasses. This would conserve water, provide nectar, encourage insects and birds and other wildlife.

Creating the means of water collection, localised composting, planting up old bins, and creating habitats from recycled wood etc will all contribute in small ways to making your community green spaces more environmentally friendly.





# PONDS, LAKES AND WATER FEATURES



When you have the responsibility for the management of landscaped gardens which contain natural or man-made water features it is important to approach each site on an individual basis and to evaluate its requirements accordingly.

A water fountain will usually be installed to run off of a pump system powered by electricity. The system will usually include mechanical plant controls located in a dry area, such as a pump, filters and possibly lights. These all require maintenance, which should be given over to an accredited pond/water maintenance contractor who is able to attend on a regular basis.

If a pump powered fountain fails, unless the contractor is able to access the underwater mechanisms to repair, the whole pool may need to be drained before the contractor can attend.

A man made pond or small lake basically requires a waterproof material to cover a deep excavation, historically such materials as puddled clay was used, later concrete.

Modern preferences include some type of sand base, a light soft fabric used as an underlay which smooths off sharp stones or grit, and then the whole area is covered by a waterproof liner up to the edges.

There are several types of Pond liner available and in wide use, examples are PVC, Rubber (either EPDM or Butyl) or a Polyethylene material.



These flexible materials are generally tear proof, able to be pressed into awkward shapes and will be watertight for a long period. Flexible liners can carry a warranty of 10-40 years, however the better quality materials used give greater longevity to the project.

If planning for a water feature seek advice from a contractor who specializes in Pond/Lake maintenance. On a new Development or when a Pond is installed it is important to ensure that all moving parts are put into an Asset list with realistic cost projections and into your Engineering Insurance. Warranties over pumps, motors and even the Pond liner are important to keep safe.

If the location of a man made Pond or Lake is close to a water source such as a River, there are environmental considerations. Use of chemicals to treat the water or to control pond weed will affect run off and these waters cannot run off into streams or rivers. Prosecution or heavy fines may ensue.

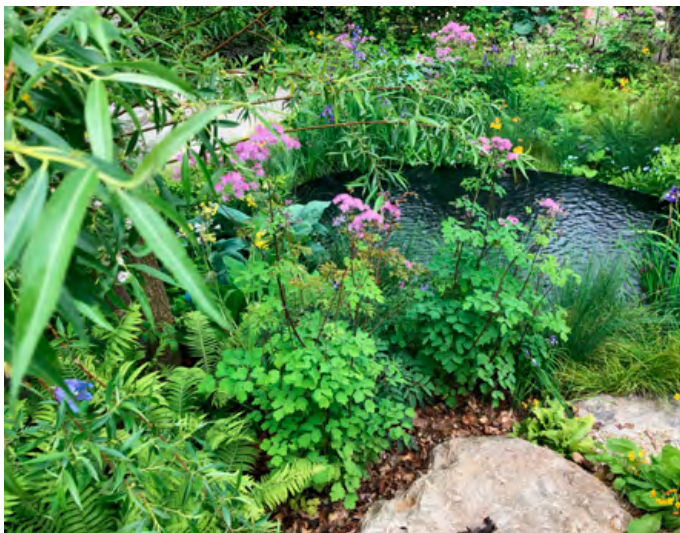
The consideration also has to be given to how a Pond/Lake is filled and replenished. -If the source is chlorinated tap water, or does the water come from a natural source such as harvested rainwater? The depth will determine whether any fish can be kept, and the addition of marginal and aquatic planting to provide natural filters, oxygenation and shelter from predatory birds, frogs or animals.

It may be a consideration to build a Swale nearby to direct the runoff and to prevent any contamination of a natural water course.

Maintenance contracts for water features may reach tens of thousands of pounds per annum and a contract is likely to be more, where the feature is large. If there are fountains, pumps or other moving parts, consumption of electricity and water also need to be factored in, along with plant maintenance and PAT Testing.

## Planting for Man-made Ponds and Lakes

Around the edge of a pond, bog side plants including shrubs, grasses and flowering plants will grow happily and provide ground cover for invertebrates and even nesting ducks. They can also serve as a deterrent to anyone trying to easily gain access to the water.



Around your Lake/Pond area, there are a large range of plants which are happy with damper conditions or prefer bog like conditions (i.e. do not mind getting their feet wet). They can be planted in soil up to the edges of the Liner.

Aquatic plants serve to oxygenate the water, subsequently improving conditions for wildlife and fish and they live fully in the water. They need to be the type which are fully hardy. These plants

cannot be planted through a liner for obvious reasons but can be introduced via planting baskets containing the roots and nutrient deficient compost. Their position is to rest on the bottom either at the shallow end at the edges, such as water Reeds and Irises or to a depth of several feet, such as water lilies. A specialist pond contractor will maintain the plants in the same way that a gardener would.

## Planning the Location of a Man-made Lake or Pond

Although it is a temptation to locate a new water feature near established trees, this may also be a drawback as their leaves will break down and will affect the water quality of the pond, leaving a deposit of nutrient rich silt on the bottom, and possibly affecting oxygen levels and any fish.



Weeping willows are good trees near water's edge, it is best to avoid Pine trees, Cypresses and Junipers as their leaves can be quite acidic.

Any motorized water features such as fountains may have filtering systems clogged up by debris and leaf fall subsequently requiring more frequent maintenance.



Lakes and Rivers are a loved and valued amenity, providing attractive walks and bringing wildlife. A managed environment containing a water course must be cared for in liaison with the appropriate environmental agency or river authority.

## Drawbacks of Water Features

Ponds, Lakes and Water courses can become overgrown or infested with invasive species – more below.

Water features with fountains and lights can disturb residents who in warmer periods may sleep with windows open, it is unlikely that a property manager would be visiting late in the evening and would pick up on this, but the consideration should be made to put timers on such features to enable quiet periods at night.

If you build it, they will come. Ponds and lakes whether natural or man-made will also attract wildlife. Residents who have bought or rented expensive property away from the Urban crush, may love the idea of a rural or natural environment, however the reality of where they have chosen to live -especially near water or where other wildlife live may result in inconvenience, noise, smells and disturbance.

I once managed a Development with a lake which had areas of water side planting, marginal plants and teeming wildlife. I received irate emails from some residents who complained about loud incessant mating calls made by Toads disturbing them at night during the mating season. There is not a lot that a property manager can do when faced with a resident who suffers from nature except to express sympathy and suggest (or not) their windows are kept closed at night.

Other residents may be disturbed by Ducks or Geese who have a habit of leaving mess on pathways, shooing away anyone encroaching on their nests, and being very protective of their broods.

A property manager must ensure if they manage sites with wildlife to adhere to any laws regarding removal of any Nests and other considered control methods for wildlife. This also includes legal reporting requirements to environmental agencies or their local authority before disposal should they find a dead fox for instance in the communal grounds.

It has been known in some Developments that have man made water features that fish suddenly appear. Should you have a commercial premises or residential units with Chinese communities, please be aware that Chinese cultural beliefs strongly associate fish with abundance, with plenty and as a symbol of wealth.

If your water feature cannot support fish and they are likely to perish - especially where water is treated with chemicals, dyes or that have associated mechanical filtering systems, please do communicate and explain the limitations of your water feature. There are potential costs for repairs where mechanical filtration methods are involved and where fish get minced up in them, and wider concerns of contamination/introduction of potential invasive species where run off is into a stream, canal or river.

To prevent access water edged areas may need low fencing or railing solutions for adults, children and pet dogs.

Dependent on the location of your water feature and any Local Authority Planning, and whether River side, Canal Side or Lake, Life buoys may need to be installed. Your Health and Safety officer should be approached to provide written advice if the Local Authority have not included this in planning. You or your site staff will need to incorporate regular inspections to ensure your Life Buoys are intact and you may need to install warning signage for deep water.

You will need to notify your Buildings Insurer that you have a water feature/water course.

Whilst nature takes its course, we must also help. Discarding refuse and plastic waste clogs up these water courses and is dangerous to wildlife.

Too much light pollution at night around water features will also disturb the circadian rhythms of wildlife, whose life cycle can involve breeding or laying eggs at night, they also carry out natural pest control by feeding at night.

If your sites allow access to members of the public, maintenance contracts should weigh up the necessity of providing waste and dog waste bins at the entrances and or exits, and whether you will be providing seating areas or benches which could be subject to misuse or encourage picnics, fires or deposit of cigarette butts.



# TREES AND HEDGES

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## Trees

Trees are vital for life, they give us shade, they support hundreds of different species of insects vital to the balance of ecology and are also homes for birds and mammals.

Trees can be ornamental, functional or provide fruit and nuts. They can provide spectacular backdrops, spring or autumn colours and sometimes their bark can also provide winter interest.





When there is a relaxed approach to maintenance of grassed or planted areas around trees, the ground retains higher moisture concentrations, less impaction damage is caused from pedestrian footfall, and again less Bark damage is caused from strimmers and mowers.

Underplanting with evergreen perennials or interspersed with bulbs also keeps other weeds down and provides attractive ground cover.





Where there is space please choose and plant a suitable tree.

Many local authorities are sponsoring The Woodlands Trust in planting hundreds of thousands of new street trees across Britain.

Whilst we must be patient to benefit from new trees, they are definitely beneficial for our future generations.

If you are in the process of replacing a tree or establishing a new area that can fit a tree, there are many resources and publications as to which tree may be suitable and those recommended for our changing climate and the effects of modern pests and diseases.

Royal Botanic Gardens Kew publication of The Essential Tree Selection Guide addresses climate, biodiversity and ecosystem. It gives choices of trees for climate resilience, carbon storage, species diversity and ecosystem benefits.

Henrik Sjöman & Arit Anderson 2023 ISBN: 978-1-7399039-4-7

Excellent guidance in choosing the right type of tree can also be obtained from websites like the [RHS](#) or [Woodlands Trust](#).

# Hedging

Hedging as aforementioned provides structure, wind barriers, a backdrop and natural fences.

Below are several options if it is time to create new areas or to replace Box or Yew Hedges or even Leylandii Cypress types.

Some of these Shrubs/Trees can be kept low as a shin height border to keep pedestrians out of borders or have the potential to grow to height to become barriers, wind shelters or attractive back drops to planted borders.

Formal evergreen hedging (especially if replacing Box) would usually have smaller leaves that can be tightly clipped. If the style can be informal then the chosen Shrub or Hedge can be allowed to flower and possibly set fruit (for wildlife). Large leafed hedging generally requires more space at its base, and when pruning should be trimmed and then finished off with secateurs to prevent ugly browning of half cut leaves.

If the effect required is year round visual interest, evergreen species may be the preference. Deciduous hedging may be the option in larger open or countryside settings. If Hedging is required as a Security deterrent, either evergreen or deciduous options exist, and include Pyracantha, Holly, Berberis, Crataegus (Hawthorn) etc

Please check all cultural requirements before investing in large tracts of new hedging:

## Some widely used Hedging Shrubs and Trees



*Lonicera nitida* – Honeysuckle



Evergreen *Euonymus* – Green spire



Evergreen *Ilex crenata* – Japanese Box Holly

The above are all good choices for small leafed evergreen shrub replacements for Box.



Fast growing evergreen shrub with elongated leaves.



Large leafed glossy evergreen Laurel – females produce berries.



A glossy medium leafed evergreen also suited to riverside & seaside conditions.



ACUBA japonica - Crotonifolia - Spotted Laurel



Large leafed evergreen shrub can produce red berries

**Euonymus Varieties**

Small leafed slow growing can be grown as a low clipped border, or a medium sized shrub or climber with support.



Euonymus Fortunei 'Emerald Gaiety'



Euonymus Fortunei 'Emerald Gold'

**LIGUSTRUM Ovalifolium – PRIVET**



A widely used Evergreen shrub which can be dark green or golden variety.



**Pittosporum 'Tom Thumb'**



**Pittosporum Varieties**

Slow growing Evergreen with chocolate foliage and highly scented flowers late Autumn.

PITOSPORUM 'Irene Patterson'



A Large growing speckled white variety Evergreen, with highly scented flowers in late Autumn.

VIBURNUM Davidii



Large leafed evergreen medium sized Viburnum with pretty red flowers.

Can be affected by Vine Weevil.



PHOTINIA 'Red Robin'



A shrub or small tree – evergreen with red tipped leaves and panicles of flowers in the spring.

Can grow to hedging heights of 3 metres.

#### **Valuable & Native Hedging for Wildlife**

Pyracantha – Firethorn



(Different colour of berries available, Yellow, Orange and Red).

The evergreen ultimate security fence, and haven for nesting birds. Has thorns and berries which ripen in August.



## Deciduous Hedging

*Fagus sylvatica* – European Beech



Leaves become brown and give a coppery red hue in late Autumn.

*Carpinus betulus* – Hornbeam



Leaves become a dark nut brown colour in the Winter, hedging mostly retains its leaves. Very valuable to wildlife and birds.

## Hedgerow

Valuable scramblers or hedges for wildlife



Viburnum opulus (Guelder rose)



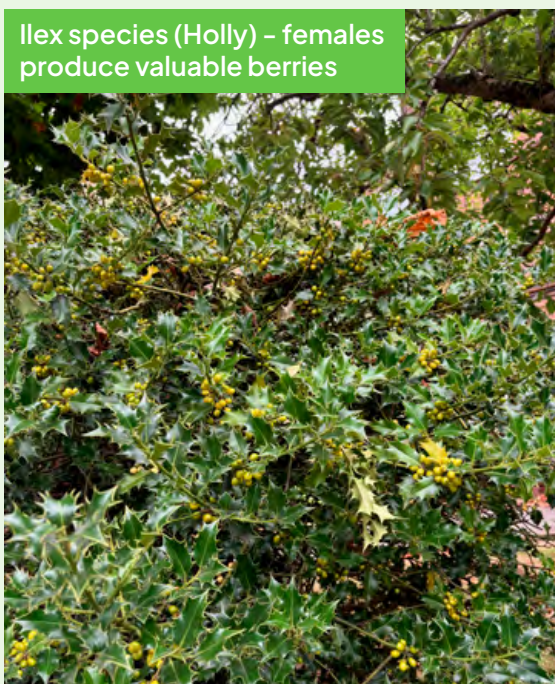
Crataegus monogyna (Hawthorn) has thorns



Rosa Canina (Dog Rose) & Pyracantha



Hedera Helix (Ivy) scrambles



Ilex species (Holly) - females produce valuable berries

Please be aware of some non-native invasive varieties of Hedgerow Plants such as Rosa Rugosa- please consult the RHS plant or Woodlands Trust websites for recommended or native varieties.

# INVASIVE PLANTS

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These are plants classed as Invasive either under EU classifications or UK government. Plants take many forms and can be found on land or by water.

This is a summary of some of the more popular plants which can outgrow their space and suggestions of how to limit them. In addition this chapter addresses more serious issues of classified Invasive non-native species which under law cannot be planted or allowed to spread in the wild.

## Plants Which Outgrow Their Space if Not Managed

EQUISITUM Hyemele – Horse Tails

Popular water's edge plants such as Equisetum are very successful in growth and spread.



When used in Designs (or in garden ponds), regular maintenance programmes should be incorporated into care plans to curb their growth, this is to prevent their escaping planting baskets piercing and embedding their roots into Pond liners, or water's edge banks. They should never be planted directly into waters edges.

### REEDS

Reeds have roots that can become very fibrous and difficult to thin out. The roots can become embedded into concrete even through planting baskets.

Professional care is required to control Reeds, and an annual maintenance programme may include cutting them down periodically, as within a few years they will fill large spaces. They are not recommended for small water features or small ponds.

They will grow to height, (the photograph below is of a filtering pond aged one year). By year three Reeds will be around 1.5-2 metres in height.



A sample of other plants which may be valuable to wildlife can also become a nuisance in cultivated areas due to their rapid growth or spread and include:

Bramble – valuable to wildlife as a hedgerow but less welcome in cultivated borders.

Bind weed – a native climber which is rampant. The smallest section of root provides a new plant. Spreads by seeds as well.

Ivy – valuable to wildlife and as a hedgerow plant as it's berries provide food for birds in winter and nesting places.

## Invasive Non-native Species Banned By Law

There is a long list of recognised non-native invasive plants growing in Britain. It is now illegal to purchase them or allow them to spread in the wild.

Below are some which are rampant and are causing economical or ecological damage.

If you identify invasive plants in your garden or water courses, seek professional advice, this can be a horticulturally qualified gardening contractor, a specialist, a plant identifier and sources such as the RHS plant identifier or Woodlands Trust etc

[www.rhs.org.uk/prevention-protection/invasive-non-native-plants](http://www.rhs.org.uk/prevention-protection/invasive-non-native-plants)

To find an accredited contractor who can remove invasive plants contact:  
[Property Care Association \(PCA\)](#)

Buddleia Davidii – has been designated as an invasive species but is valuable to wildlife especially butterflies and bees. Its growth should be controlled, and it can be cut down for winter. It spreads by seed and bird droppings and can grow anywhere including on roofs and in gutters.

If it is growing on a building the sooner, it is removed the less damage it will cause.

## Invasive Plants Often Found By Waterside

HIMALAYAN BALSAM (*Impatiens glandulifera*)

Himalayan balsam for instance is a listed invasive non-native plant first brought to this country as an exotic plant in 1839 by Victorian plant hunters. It is a fast growing annual which is found in gardens, allotments and slower moving riverbanks, and is a relative of the Busy Lizzie (*Impatiens*). Under the provisions made within Schedule 9 of the Wildlife and Countryside Act 1981, it is an offence to plant or cause Himalayan balsam (*Impatiens glandulifera*) to grow in the wild. Himalayan Balsam has also hybridised with other plants.

Chemical treatments are not used because this would contaminate water courses, it is old fashioned weeding and pulling out the plants before they have a chance to set seed (a plant can produce 400 or more seeds, pods explode and scatter widely), on an organized basis and sometimes in Waders.





Below – Plants mistaken for Himalayan Balsam.

Found growing in marshlands, by rivers and lakes. This is a native noninvasive plant.



## Invasive Plants Affecting Land

The following information can help to correctly identify Japanese Knotweed.

Reynoutria japonica/Fallopia japonica



*The illustration above is a mature specimen planted by renowned Plantsman EA Bowles over One Hundred and Fifty Years ago. It is located in the Myddelton House Gardens in Enfield. It remains as an educational example and whose growth is tightly controlled. Under the ground encasing the base and root system of the plant is a thick perimeter of imperviable material to prevent it's spread by Rhizome (Roots). Rhizomes travel a distance underground and then a new plant pops up a distance away from its parent.*

Japanese Knotweed is native to East Asia, Japan, China and Korea. It was introduced into Britain after being found by a European adventurer and by reproduction of a plant donated to the Royal Botanic Gardens in Kew around 1850. Initially gardeners liked it because it looked like Bamboo and grew well in most conditions. By the 1860's it was used in garden designs in the grounds of large houses as a pretty and quickly growing Deciduous shrub with attractive white flowers in Spring.

By 1970 the 'weed' had travelled rapidly across Britain aided by Railways and waterways.





*If only Chief Inspector Morse had been a Plant Detective- behind his image you can see rampant Japanese Knotweed in flower in a Residential Garden in Oxfordshire - Series 5 Episode 2 (Fat Chance) - filmed in the summer of 1990.*

There is still a wide lack of knowledge and understanding about what Japanese Knotweed is and the potential damage it can cause.

Since 1981 it has been an offence of the Wildlife and Countryside Act, Section 14(2) to “plant or otherwise cause it to grow in the wild.” A fine of

up to £5,000.00 or prison for two years could be applicable if found to allow contaminated soil or plant material to spread from any waste – and this includes your Contractor removing waste from Residential buildings or even domestic gardeners who take green waste to local recycling centres.

It is estimated that the cost of clearing Japanese Knotweed from the Olympic Park (Queen Elizabeth Park, Stratford) was £70 Million Pounds and took 3-4 years.

Whilst it is not illegal to have Japanese Knotweed, since 2014, Houses and Residential buildings who do not control the plant in their gardens can be prosecuted. Fines can reach up to £20,000 if allowed to spread to other properties, and prosecution both of individuals and commercial entities have taken place in this Country.

It is also classed as controlled noxious waste in Britain under part 2 of the Environmental Protection Act 1990.

The only natural control known is an insect called *Aphalara itadori* and which has been released in Britain in an attempt to stop Japanese Knotweed spreading.



*The above illustration shows a Residential Building with a number of borders flush to the buildings. Japanese Knotweed infested several disparate areas around the site. Other neighbouring buildings have no sign of this issue and therefore likely the roots of Japanese Knotweed were introduced in compost or top soil. The original cleaning company employed the gardening operatives, who may have had no horticultural qualifications or little knowledge. The site has since been put under an eradication treatment plan by a specialist accredited Japanese Knotweed removal company.*

## **Identification and Eradication of Japanese Knotweed**

Property Managers will be aware it is a legal requirement to notify of the presence of Japanese Knotweed in an LPE1 Leasehold Pack, its presence has caused sales to fall, and caused great difficulty of others to re-mortgage.

If you have not dealt with Japanese Knotweed in the past and you suspect that you have discovered it, please do not ignore it or ask your gardening contractor to trim down or remove from site as this is illegal. Take photographs. The Stems are reddish and leaves sometimes heart shaped.



The example left is Japanese Knotweed in growth. It can reach 2 metres in height in the summer.

If this is in a domestic garden, or coming from a neighbouring property, a river side or even street location– contact the local Environmental Dept of your Council.

The RHS also have a plant identifier – or you can also contact them directly for advice.

If you manage a site, you can also contact the [Property Care Association \(PCA\)](#).

Only companies who are accredited and registered members of the Property Care Association (PCA) can carry out Knotweed Eradication Programmes and other invasive weed control treatments.

A list of contractors will be available and those operating in your area should be contacted.

They can identify Knotweed - sometimes without charge, and will then prepare a management plan and quote, a site map of areas affected and a programme of treatment.

Your own management protocols may require you to seek more than one quote for the works, and even consult with your stakeholders, as these courses of treatment may cost several thousand pounds and will cause disruption to the areas being managed.

After treatment the contractor will provide a 10 year warranty and certificate.

This may be vital in a sale as a Japanese Knotweed Management Plan must be evidenced if the LPE1 pack has responded in the affirmative to its presence, and your own Building Insurance may require this.

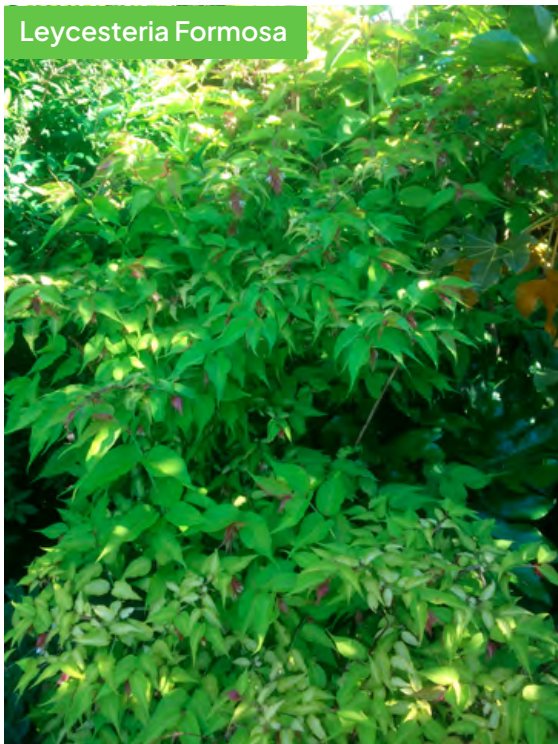
Without going into too many particulars, where possible excavation is carried out, and treatment will often be a mix of invasive works and herbicide treatments.

Because treatment is carried out over a number of years the following Spring after treatment re-growth but somewhat weakened, will appear and which should be explained in correspondence or literature provided by the specialist company dealing with this. They will return periodically to carry out further green waste removal and herbicide treatment. Growth should not be cut down by contractors or residents.

The removal of Japanese Knotweed from an area does not confirm that a re-planting scheme can take place in the empty space, the specialist contractor must advise about any and all restrictions of planting.

RICS have published a [piece here](#) to provide guidance and advice to Surveyors and provide Mortgage Lenders with information needed to enable the Housing market to continue to be fluid.

Plants that are sometimes mistaken for Japanese Knotweed



A beautiful ornamental plant from the Honeysuckle family from the author's garden. Deciduous, green and arching Cane like stems has racemes of purple hanging flowers in the summer. Also, not to be confused with Himalayan Balsam



Lilac Tree has heart shaped leaves, photographed before flowering



Summer flowering perennial

# PEST AND DISEASES

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Affecting many of our beloved trees and hedges and other plants.

The following are a sample of more serious issues faced by our trees and which managers must be alert to.

Tree surgeons and in some cases trained horticulturists are really the only experts who should be diagnosing issues and caring for our trees.

There are a number of tree species also widely used as hedging we know and love which are under threat and at risk.

The loss of beloved specimens sometimes hundreds of years old has been caused in recent times by pests and diseases now spreading across the country. I have included a Case Study below on *Buxus sempervirens* a British native tree – commonly referred to as Box and also briefly touch on others.

Future landscape and plant use planning must take into consideration climate changes, and resilience of plants against non- native pests and diseases.

The reduction in use of fossil fuels has resulted in cleaner air, less pollution and a fall in acidity levels in rainfall which has saved many lives over a number of decades. However less acidity in rainfall, combined with milder winters over the past few decades has resulted in a failure to completely kill off some pests, fungus and diseases and which flourish on Roses, Fruit trees and other plants. This combined with earlier and wetter springs and summers, can also affect flowering and growth cycles leading to disrupted or reduced production of fruits, grains and seeds, with other annual vegetables, cane fruit and salads also affected.

Imports have sometimes brought with them new Pests such as Moths, Hornets, Beetles, Fungi, Bacteria etc whether attacking trees or shrubs or other plants it is with devastating effects. Sixteen new tree pests have been identified since the Year 2000.

A list of tree species at risk from pest and diseases can be [found here](#).

The Arboricultural Association can provide also provide assistance, identification and treatment if possible, through accredited Tree Surgeons. Further information and finding an ARB Approved Contractor is [available here](#).

Here are some examples of both nonlethal pests and diseases and lethal ones leading to the demise of the tree or shrub.



This beautiful large tree is native to the Balkans and believed to be brought into Britain in the early 17th Century (Shown in flower in May).

It is typically affected by two issues which cannot easily be differentiated – the first is leaf blight caused by a fungal disease. The other is leaf miner caused by tiny caterpillars burrowing into the leaves. Both causing brown spots and discolouration and crisp burnt leaf edges appearing by late summer, neither are fatal to the Tree but unsightly, and production of nuts (conkers) may be reduced.

Good hygiene is required, leaves cleared away from infected trees and removed from site may help.

Signs of damage to the bark, causing ‘bleeding’ may be Canker and a Tree Surgeon should be appointed as this could be fatal to the Tree.



Sadly the beautiful vibrant green foliage of the Horse Chestnut often becomes rusty and brown by August.

## **Ash Trees – Fraxinus angustifolia and some of its Ash tree cousins**

The British native population of Ash trees is currently under threat from Sudden ash die back/Chalara caused by Hymenoscyphus fraxineus, a fungus originating in Asia that native trees have no natural defence against. A very small number of trees are showing some resistance, but the disease is spreading slowly.

There is a great concern amongst tree lovers and professionals as established and mature trees can quickly fail and it has been estimated by the Woodlands Trust and other experts that up to 80% of British ash trees will die in the future, changing the landscape of Britain and costing the economy up to £15 Billion Pounds. An ash tree is a forest tree growing at maturity in excess of 15 metres high, it is also found in many residential gardens, die back of large numbers of leaves and lesions on branches, or any changes to your ash tree should be reported as soon as possible, danger may be caused to garden users especially as branches can die and fall.

If visiting the countryside always clean off boots and tires to prevent any transfer of pathogens to gardens.

Concern about Ash Trees can be [reported here](#).

## **Oak Trees – Quercus robur and some of its Oak tree cousins**

Oak trees form a group of different species, from our own native English oak- Quercus robur and Sessile oak - Quercus petraea to imported varieties like Holm oak, Turkey oak, Scarlett oak which are being affected by a number of different pests and diseases.

### **Acute Oak decline or Chronic oak decline**

In trees aged 50 and over, signs of weeping lesions on the trunk of the tree or branches on the Crown of the tree dying off. It can be caused by several factors, Honey fungus (mushroom type growth at the base of the tree), Wood boring beetles, Phytophthora root rot, Powdery mildew. Trees affected should be reported to Specialists, some treatments are available if caught early enough.

Another concerning pest is the Oak processionary disease caused by the Processionary caterpillar moth. The leaves of the tree are stripped off, the caterpillars appear as a long line moving across the tree in late Spring to early Summer. Currently Trees known to be affected are located in South East England. Local Authorities in those areas are working to limit the spread and impact by rolling out budget limited preventative spraying of groups of Oak trees. The hairs/barbs of the caterpillars can cause danger to life for both pets and people- especially in public places - the hairs of the caterpillars are very dangerous, can cause Rashes and can be potentially fatal especially to dogs who sniff areas around trees, or to passers-by who may inhale the barbs shot out into the air.

Any sign of this issue should be reported as soon as possible.

Identification and treatment of any affected Oak Tree is vital.

## **Yew- *Taxus baccata***

The Yew Tree is a British native – it is an evergreen tree traditionally used as a single specimen and used widely in largescale hedging. Traditionally Mazes would be planted from Yew as is Topiary. Female Yew trees produce tiny flowers followed by red berries which are poisonous to humans, but valuable to wildlife, Yew is often clipped before or after flowering.

Graveyards are often planted with Yew trees, and because they are evergreen their branches used for decoration throughout the year. There are many different types shapes of Yew available and suit most growing conditions.

Yew trees can grow up to 12 metres in about 20 years and can live for several hundred years as beautiful single specimens.

Yew trees, as others have become susceptible to the Phytophthora fungus which attacks the roots of the tree, causes yellowing and browning and disintegration of the leaves. Good drainage is vital to prevent waterlogging which can contribute to the disease. The disease may be well advanced by the time above ground symptoms show.

Yew trees can also on occasion be affected by pests such as Vine weevil, scale insects, gall mites but this would not be fatal.

It is not currently recommended that Yew hedging or Box hedging is chosen as part of a new planting scheme.

Yew Hedging or Trees or individual Standard Topiary once affected by Phytophthora, can spread to other species of plants and trees nearby as such as Acers, Lavender, Box, Prunus (Flowering cherry trees), Viburnum, Hollies and some others.

### **IT IS VITAL THAT EARLY IDENTIFICATION AND TREATMENT OF BOX AND YEW DISEASES IS CONDUCTED BY APPROPRIATE SPECIALISTS**

It is also vital that any tools used to clip Box, Yew and any other diseased Trees are sterilized to prevent spread, and that hedge clipping is only carried out during dry periods as damp conditions can spread issues.



## Box – Buxus Sempervirens

### A case study

Buxus is actually a tree which could at full maturity reach a height of 12 Metres.

Box is a native to Southern Britain and has been traditionally used in hedging and topiary because of its very small leaves and relatively slow growing habit, if allowed to flower it has tiny white flowers whose scent is attractive to insects but to humans may resemble the smell of urine.

The famous Box Hill in Surrey is aptly named as one of the only areas of wild Box tree populations growing in Britain.

Anyone who has visited a National Trust Country House, with a formal garden would come across intricate knot or parterre designs or handsome Topiary and which traditionally have been Box.

### Box Blight and Box Tree Caterpillars



Before 2011 Box was only known to be affected by Box Blight, caused by at least 2 fungal diseases affecting both leaves and stems. They cause eventual decimation of the shrub. Fungi is spread by spores and carried by the elements. Leaves will fall off and be found under the plant.

Some fungicides are successful in treating the issues if caught early enough, however Fungicides can reduce beneficial insects and affects biodiversity. Stems will regrow although leaves will be more spaced. An open habit is healthier for the plant. It is important to prevent the spread by only trimming Box during dry weather as the fungi thrive on damp conditions. Tools and blades should be sanitized. Overhead watering should be avoided. Debris around the plant should be removed.

It is however difficult to diagnose the cause of damage sometimes because symptoms can be similar to damage caused by the Box Tree Caterpillar. This infestation by a Moth native to South East Asia which has swept over Europe since 2007, reached us between 2011-2014 and can also cause large scale damage. The caterpillars will also strip the leaves from the stems of box plants leaving them bare. Some webbing may be visible on the leaves as they chew their way through. There are certain Pheromone Treatments and Traps which aim to confuse Males and disrupt breeding, however as the eggs are laid in the earth this must also be treated. Where your Box plant is affected and the area underneath the plant is clear, it is more likely to be the Caterpillar (active between February to July), as they eat the evidence. Recovery of the plant is possible if caught early and foliar feeds should also be applied to help strengthen the plant. Damaged areas will need to be cut out but will regrow slowly.



Box has been used widely by Developers in planting schemes, hedging and topiary.

## Decline in Box Hedging in Grand Surroundings



*Hampton Court – London – in the foreground note the low clipped box browning.*



*A Stately Home – Leeds – note the de-foliated and brown areas in the parterre hedging.*



Shown left in Essex - On either side of this property entrance the long established box hedging has been decimated. The owner will have no choice but to remove all of the hedging, the roots and the infested soil. The owner will be able to find other evergreen small leafed shrubs suitable as replacements however it is no consolation- the cost of works to remove and replace are an unwelcome burden at a well maintained and attractive property such as this.



At the entrance to a large residential building both planters in the foreground with Topiary Box have are affected by Blight or Caterpillar and the shrubs now on limited remaining time.



*Shown above - A 1930's Mansion Block with several entrances where all of the mature Box Hedging has been falling over the course of the past few years. At this site there are mixed sections of hedging including Holly, Laurel, Privet and so in time the Box sections will be removed, and alternatives planted. The lengths of hedging to be replaced will be about 10 metres in width. The estimated circumference around the buildings on two streets is about 80 metres in total, somewhat mitigating the financial cost of replacing some sections.*

As with all living things even the most careful care cannot prevent spread to your plants, sadly if not caught in time leading to their demise. A pragmatic approach will be needed, and the opportunity presented to plant something else in its place will be the end result in many cases.



# GLOSSARY OF TERMS

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## A-Z brief description of gardening terms

<b>Aeration</b>	The physical puncturing of holes in the soil to about a depth of 6-8 cm to release gases, introduce oxygen in grassed areas to enable water absorption. This is done by machine or pitchfork.
<b>Annual</b>	Refers to a plant which completes its life cycle from seed growth to flowering to producing seed in one year.
<b>Biological (treatments)</b>	Removal of a pest by using a targeted natural control method without harming other living things. e.g.: Nematodes.
<b>Bulb/Corm</b>	A plant which grows for a season and flowers, and whose energy for growth is stored again after flowering as it dies back down.
<b>Clay</b>	A heavy soil type which can shrink in drought and become waterlogged in floods.
<b>Cultivar</b>	This is a plant which has been artificially bred from a species plant or cross bred between two similar plants for size, colour, flowers or shape.
<b>Deciduous</b>	A tree or shrub that does most of its growing and flowering from Spring to Summer. Its leaves fall in Autumn and becomes dormant in Winter.
<b>Dressing</b>	Adding a layer of soil or compost to feed the soil or special mix to nourish a grassed lawn.
<b>Evergreen</b>	A tree or shrub that retains its leaves throughout the year, and replenishes them with new growth over a long period of time.
<b>Genus</b>	The family group a plant or tree belong to. This is important in understanding that some pests or diseases will attack Species of plants which are related to the same Genus.
<b>Herbicide</b>	A chemical treatment targeting a specific type of plant growth - e.g.: Weeds in Grass, Japanese Knotweed etc.
<b>Loam</b>	A soil type.
<b>Mulch</b>	A dressing to nourish the ground, act as a weed suppressant and retain moisture e.g. Bark chip

- Perennial** A plant lives for a number of years, flowers during a set period and often dies down after flowering or in winter.
- Rhizome** The root system of a plant which sends underground runners which form another plant appearing a distance away from its parent. Japanese Knotweed for example.
- Scarification** The physical scraping and removal of dead grass (thatch) from a lawn by machine or tine rake to encourage new growth of grass (best carried out Autumn to Winter).
- Species** Offspring of a Genus -A group of plants which can breed and produce and can be related to other species from the same Genus i.e.: Ficus benjamina and Ficus carica.
- Swale** An area of land usually at a lower level than it's surrounds or as a constructed area and which is planted up with appropriate tolerant plants. Its purpose is to absorb heavy rain run off or to prevent flood water from reaching buildings or other valuable areas.
- Utility Planting** From Utilitarian. Groups of Trees and Plants who serve a specific purpose in planting designs. In 16th – 19th Century this would mostly have been for the purpose of growing and providing food. Utility plants can come from all over the world and do best in growing environments which match their cultural needs.

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**Pests and Diseases and Reporting:**

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**Jeanine Cohen MTPI Assoc RICS**