

Greenspace Tree Planting Strategy

2021 - 2031



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INTRODUCTION

There is widespread and increasing appreciation of the importance of trees in both our urban and rural communities. We must demonstrate resilience in response to increasing threats from climate change and the introduction of exotic pests and diseases.

Our trees are public assets that provide both visual amenity and landscape value and are key components of the green infrastructure that is essential to maintain a healthy and attractive environment for current and future generations. Careful selection and strategic placement of trees will provide enduring and notable benefits for our communities such as; summer shade, flood alleviation, mitigation of the effects from noise/traffic pollution, offering a positive psychological effect/sense of wellbeing and providing habitat and resource for our wildlife.

Arun's existing tree stock already has enormous value and should not be underestimated. Notably the value of existing mature trees and how efficient they are at carbon sequestration in comparison with newly planted trees and in the context of formulating the plans proposed under this tree planting strategy.

The England Trees Action Plan May 2021, is a national document that has lots of relevance to Arun's strategy and illustrates how Arun is at the forefront of delivery through the development of its strategy and links to many actions, including:

- Plant more trees in towns and urban places
- Working with the planners to ensure more trees are included in new development
- Help fulfil the role of connecting people with trees

BACKGROUND

The focus of Arun's ten-year tree planting strategy will be to **increase existing tree canopy and numbers of trees on land in the ownership of the council**. This is because the Council will have control, management responsibility and liability for these trees in the future.

The Council's aim is to ensure that delivery of the strategy is collaborative. However, it is vital that the delivery is coordinated and underpinned by the objectives and best practice as set out in this document. As the lead authority and the organisation with future liability for trees on its land, the Council must satisfy itself that any aspirations of Parish/Town Councils and community organisations in respect of tree planting on Arun's green spaces are delivered in line with this strategy.

Should organisations wish to expand the delivery of tree planting on their own land or land controlled by others, it is recommended that they follow the guiding principles outlined in this strategy. This will ensure the greatest chance of positive outcomes and future sustainability. The document will also be a useful tool in guiding tree planting within new development, where the Council would expect developers to follow best practice, and where there is the likelihood that Arun District Council will at some point adopt land and trees transferred by developers.



Aims & objectives

There are a number of aims and objectives which the Council seek to deliver through this strategy and the associated planting plan.

Our aims

- To provide clarity and consistency of purpose to our programmes of planting and establishment of new trees
- To offer a sustainable approach to maximising resources in respect of tree planting and future maintenance requirements
- To mitigate the long-term effects of climate change on our tree population and improve resistance to pests and disease
- To diversify the tree stock through new plantings and appropriate species selection. This should obviously also be the case for tree species that are vulnerable to current and future pest and diseases or those that are particularly vulnerable to a warming climate, for example Ash
- To ensure the principle of 'right tree right place' underpins all planting proposed under the strategy
- To create a tree planting legacy in Arun for decades to come

Our objectives

- Develop a deliverable 10-year planting plan which is underpinned by the principles set out in this strategy
- Determine a target for the numbers of trees planted over the strategy period and an outcome in the increase in canopy cover that this will deliver
- Encourage and support community involvement in tree planting and especially with aftercare (watering, mulch application, reporting significant damage or disease), to increase the tree stock in a way that satisfies stakeholders and encourages a sense of ownership/guardianship
- Promote the 'natural regeneration' of any existing tree resource at locations where this can be appropriate
- Prioritise the use of native tree species in or adjoining areas of high conservation value

Benefits of adherence

There are many benefits associated with a well-planned strategy and planting programme based on best practice principles.

These benefits include:

- Excellent survival and establishment rates (>95%) – i.e. trees that are healthy, of good form and with successful root development
- Low maintenance requirements per tree and preservation of natural aesthetically pleasing form, throughout the tree's lifespan
- A positive, pre-emptive response to anticipated increases in development and population density by ensuring greater harmony of developing trees with surrounding hard structures and the wider built environment
- Significantly reduced recourse to potentially damaging and costly pruning measures, e.g. pollarding, crown reduction
- Reduced incidents of footway disruption and damage to light construction (e.g. hard landscape features, boundary walls, utility apparatus). Negligible amount of tree-root related damage events to private property and incurred liability in the event of subsidence claims
- A long-term increase in the quantity, amenity value and shared sense of ownership/guardianship of our tree stock

95%
**Survival and
 establishment
 of healthy trees**



Best practice

The Council will undertake and follow the guiding principles as set out below in the delivery of the Tree Planting Strategy.

Pest and disease resilience

- Maintain awareness of current threats through continued networking with professional colleagues nationwide and from industrial and government bodies
- Maintain awareness and considered use of, species/varieties with proven disease resistance when addressing specific threats (e.g. Dutch elm disease) or propagate from trees displaying the same (e.g. Chalara ash dieback)
- Over reliance on particular tree groups can inhibit biodiversity as well as leaving tree populations vulnerable to significant damage if there are outbreaks of host-specific harmful pests and disease. We will endeavour to plant no more than 10% of the same tree species, no more than 20% from the same genus and no more than 30% from the same family, during our annual planting programme

Appropriate site/tree selection

- Site/tree selection; matching tree types to site conditions to achieve high rates of strong establishment and reduce plant stress/post-establishment maintenance pruning
- Consideration of ultimate size and spread; species/cultivars selected will be of a form at maturity that complements the available space, above and below ground, in order to reduce likelihood of significant future pruning. Investigating and avoiding utility apparatus above and below ground.
- Consider NHBC (National House Building Council) building near trees. Provides useful information relating to approximate mature height and water demand of commonly encountered tree types.
- Shared reporting of significant disease(s) observed. History of disease on site or in wider geographical area.
- Soil properties (drainage, pH, soil type and structure).
- Presence of potential 'frost hollows'. Is there exposure to prevailing and localised (venturi effect) winds or exposure to salt-laden winds?
- Vulnerability to seasonal waterlogging or drought events.

Ensuring high quality procurement

- Source external plant material from certified UK Homegrown suppliers (preferably local but not at the expense of stock quality).
- Requirement for 'plant passports'.
- Local provenance wherever exploitable.
- Consider seed harvest from and propagation (limited scale) of specimen trees. Arboretum trees (historic association, e.g. cork oak / *Quercus suber*) to be supplemented from existing gene bank.
- Seed collection and propagation/ establishment of trees with local provenance, utilising in-house facilities is an aspiration

Planting methodology – the handling, planting and maintenance of new trees

Timing and quality of planting operations

- Optimum tree planting months are December and January, but operations may take place anytime between mid-November and mid-February, subject to prevailing weather and ground conditions.
- Planting outside of that 'traditional' tree planting season is considered undesirable on account of the higher intensity of management required to ensure establishment and risk of physiological stress leading to poor pathogen resistance. It is recognised that fluctuations in plant phenological periods may shorten or extend the optimum planting period.

Tree dimensions at planting

- Selected standard trees, 10-12cm girth at 1.0m height are preferred (min. 8-10cm to max. 12-14cm). Fully containerised trees ideally not to exceed 45L in pot volume due to manual handling considerations.
- The use of larger specimens will be exceptional, likely to require mechanised handling and negotiated with the client/ contractor on an individual basis.



Best practice (continued)

Pit preparation

- Tree pits will be rectangular in shape with a minimum length and width of 75cm
- The base of all tree pits shall be forked over to a minimum depth of 15cm below containerised root system and the side walls perforated, to encourage developing roots to access the surrounding soil

Installation

- Tree roots are always to remain covered to prevent desiccation of fibrous material. Container or wrap to only be removed immediately prior to installation and then roots to be promptly covered with infill material. Avoid planting when/where cold, drying winds persist
- Root collar must be level with adjacent ground levels and kept free from contact with mulch applications and strimmer guards
- Irrigation tube (perforated 60mm diameter plastic) to be wound around tree roots from base of pit and to approximately 10cm proud of surface
- Quality topsoil/peat-free compost to be reintroduced back into the tree pit with some original material incorporated and progressively 'firmed in' to prevent excessive settlement

Tree support

- The level of support used will be a compromise between the need to protect the tree from mechanical damage and encourage stem agitation from prevailing wind during early stages is helpful to the development of a strong root system

- At least one stake will be installed as standard, additional stakes at the discretion of the supervising officer. Where two stakes are preferred, a crossbar arrangement is preferred with a single wrap-around strap and spacer
- Single stakes should be positioned on the prevailing windward side and cut off immediately above the securing tie, to avoid stem chafing and installed at a depth (min.600mm) so far as to provide rigid support to the tree for a minimum period of 3 years
- Upright stakes are preferred (for bare root trees where rooting pattern allows) but may be positioned obliquely where necessary to protect containerised stock

Tree protection

- All trees will be fitted with a short but durable grille strimmer guard, secured with cable tie(s) and into the ground with bio-degradable pegs
- The use of spiral tree guards is controversial as the majority are not bio-degradable, they are unsightly, add to litter problems etc. They also tend to cause spindly growth, due to a reduction in space and light and can be hard to remove as the sapling grows
- Wire mesh cages are optional and will be specified as an additional item by the supervising officer, on sites where there is a perceived significant risk of mechanical damage

- Min. 5cm - max. 10cm depth of composted bark/woodchip mulch will be applied evenly across surface area of the tree pit (leaving a min. 5cm gap all around stem base).

Tree aftercare

- Formal and shared record of 'young tree maintenance' to be prepared and updated annually, to ensure all newly planted trees are captured on a minimum 3 year programme.
- Routine tasks in addition to ad-hoc intervention will include; weeding, application of composted bark mulch/soil dressing, formative pruning, adjustment of stakes and ties as required and to include reduction from full to half-stake height as soon as viable. The aim is to have all standard trees free-standing 3 years after planting.
- Irrigation is to be carried out at the instruction of the supervising officer.

Tree species/cultivar selection

- Appropriate tree types will be determined following careful consideration of the site's unique characteristics and the objectives of the planting scheme.
- Tree types vulnerable to current disease threats and/or the subject of plant health orders will be avoided. Alternative species and cultivars of proven resistance will be considered.

- We will aim for a strong theme of uniformity in some areas where it is appropriate, using a minimal number of tree types for greater visual impact and the promotion of plant communities.

Tree Characteristics

- Ultimate size and spread; species/cultivars selected will be of a form at maturity that complements the available space.
- Consideration of rooting pattern and vigour.
- Plant association – negative/positive influence on adjacent tree/shrub cover, on and off-site
- Fruit type and quantity; we shall not encourage the introduction of heavily fruiting trees such as Malus 'John Downie' or any orchard-type varieties cultivated specifically for their fruit, unless specifically looking to deliver orchard areas
- Avoidance of propensity to produce low-level epicormic/basal growth in the absence of heavy pruning work.
- Avoidance of propensity to produce 'suckers' growth.
- Avoidance of poison fruit, seeds and foliage
- Avoidance of propensity to development large thorns and sharp growth at low level (e.g. Gleditsia, Robinia, Kalopanax sp.).

"It is very likely that climate change will have serious impacts on drought sensitive tree species on shallow, free-draining soils, particularly in southern and eastern England."

Forestry Commission 2013



Best practice (continued)

Whip planting

The planting of whips alongside standard trees has many different benefits

- Whips are young bare-root saplings, usually around a year old that can be bought in bundles or as single plants. Whips are normally available between November and March and come in three sizes: 30-45cm, 45-60cm and 60-90cm, the 45-60cm establish the most successfully and are suitable for large-scale planting schemes
- Whips are easier to plant than standard trees and can be a great way to get communities involved, looking after the trees will be an ongoing project; keeping them weed free, noting vandalism, checking tree guards etc.
- Whips can be used for a variety of reasons, such as hedge planting, creating scrub areas or re-wilding
- Hedge planting can create valuable habitats and corridors for wildlife, new hedgerows that link with existing hedgerows or other habitats such as scrub or woodland are particularly valuable for wildlife and biodiversity
- The planting of trees and hedgerows can create a natural barrier to flood waters, reduce sediment drawn into watercourses and increase water absorption into the ground. Trees can also capture pollutants contained in run-off such as fertilisers and pesticides

- Rewilding is now a choice for land management as it helps restore ecosystems and supports great biodiversity. Whip planting can be labelled as a low-cost method of ecological restoration, restoring native plants to habitats is vital to preserving biodiversity across the district. By creating a mosaic of native plant gardens/re-wilding areas across the district each patch becomes part of a collective effort to nurture and sustain the living landscape wildlife
- The planting of whips features prominently in our tree planting plan

Climate change

There is uncertainty in the predictions for future seasonal weather patterns and the occurrence of extreme weather events becoming more prevalent. Current projection is a trend towards hotter, drier summers and warmer, wetter, windier winters. It is therefore prudent to consider the use of both native and exotic species. This will build-in longer term resilience and allow us to 'hedge our bets'.

Trees and development

The Greenspace Service are consulted on new development proposals, considering relevant policies, statutory obligations and council objectives. We will advise and guide developers to the best practice outlined in the strategy once it is in place. Proposals under developments on private land are externally specified, then further assessed and advised through the consultation process. Applications are generally provided with a Local Planning Authority (LPA) Greenspace recommendation before determination is given.

Public Open Space areas including proposals for tree planting within development sites are subject to the LPA scrutiny as above, but don't necessarily have to conform to one set policy requirement, rather the adopted SPD's, design guide and adopted strategies and consideration of central government requirements i.e. Biodiversity Net Gain requirements, coming forward with the Environment Bill.



Planting plan

* Denotes sites where part/full planting is proposed in year 1

** Denotes commitment for additional tree planting under strategy but reliant on other factors before determining scope

Site name	Ward	Whips	Standards
Aldwick Green	Aldwick East	24	1
Barrack Lane POS	Aldwick East	150	1
West Park*	Aldwick East	1000	8
Avisford Recreation Ground	Aldwick West	100	3
Queens Field Recreation	Aldwick West	0	7
Rose Green POS	Aldwick West	0	3
The Oaks POS	Aldwick West	0	2
Bewley Road Estate	Angmering & Findon	0	2
Findon Cemetery	Angmering & Findon	1000	4
Findon Recreation Ground	Angmering & Findon	1950	0
Lloyd Goring Close	Angmering & Findon	0	3
Palmer Road Recreation Ground**	Angmering & Findon	0	0
Older Way	Angmering & Findon	0	2
The Oval*	Angmering & Findon	0	5
Arundel Cemetery**	Arundel & Walberton	0	0
Canada Road POS*	Arundel & Walberton	700	4
Meadsway	Arundel & Walberton	400	6
Arundel Orchard*	Arundel & Walberton	0	3
Garden Crescent POS	Barnham	120	3
Marshall Close*	Barnham	0	3
St.Richards Rd & Ivy Lane	Barnham	750	5
Mewsbrook Park - Ruby Gardens	Beach	50	0
Mewsbrook Park	Beach	2000	30
Middle Mead POS	Beach	100	14
Norfolk Leisure Gardens	Beach	0	17
Norfolk Leisure Gardens Pitch & Putt	Beach	3000	19
The Cloisters POS	Beach	125	5
The Whapple POS 1*	Beach	390	8
Trinity Way POS	Beach	0	5
Berghestede POS	Bersted	0	2
Bersted Park (inc. all fields)*	Bersted	8500	36
Chalcraft Cemetery	Bersted	0	4
Holly Court*	Bersted	0	2
Meadow Way	Bersted	0	2
Rowan Way POS	Bersted	300	2
The Brooks*	Bersted	3000	3
Brookfield Park*	Brookfield	2000	33
Columbine Way POS	Brookfield	0	10
Littlehampton Cemetery	Brookfield	0	10
The Faroes POS	Brookfield	120	10
Windward Close POS	Brookfield	0	11

Site name	Ward	Whips	Standards
Hearnfield Road POS	Courtwick & Toddington	0	2
Helyers Green	Courtwick & Toddington	2000	25
Heo Green	Courtwick & Toddington	500	8
Linnet Close East POS	Courtwick & Toddington	30	10
Linnet Close West POS	Courtwick & Toddington	0	13
Sunken Lane*	Courtwick & Toddington	1500	10
Wickbourne Estate/Greenfields	Courtwick & Toddington	500	3
Worthing Road Recreation Ground	Courtwick & Toddington	500	10
Langmead Recreation Ground*	East Preston	600	15
Lashmar Recreation Ground	East Preston	500	0
Felpham Site 6**	Felpham East	0	0
King George V Recreation Ground*	Felpham East	0	5
The Hartings POS	Felpham East	150	4
Old Rectory Gardens**	Felpham West	0	0
Glebelands Recreation Ground*	Ferring	0	7
Felpham Recreation Ground	Hotham	40	8
Hotham Park*	Hotham	0	2
Bognor Mounds	Hotham	0	0
Ladybrook Orchard*	Hotham	0	1
Marine Park Gardens**	Marine	0	0
The Steyne Gardens	Marine	0	1
Bognor Mounds	Marine	0	4
Waterloo Gardens**	Marine	0	0
Rock Gardens	Marine	0	16
Cootes Lane*	Middleton on Sea	0	3
Juniper Close POS	Middleton on Sea	0	1
Larksfield Recreation Ground	Middleton on Sea	100	9
Larksfield Recreation Ground Extension*	Middleton on Sea	0	3
Silver Birch Drive POS	Middleton on Sea	0	1
Bognor Cemetery	Orchard	0	14
Laburnum Recreation Ground	Orchard	0	12
Amberley Green Estate	Pevensey	0	6
Monterey Gardens POS	Pevensey	105	2
Linden Park Recreation Ground	River	500	3
Marina Gardens	River	0	2
Oyster Pond	River	0	8
Brickfields Recreation Ground*	Rustington West	500	11
Giles Close/Cobham Close*	Yapton	0	2
May Close POS	Yapton	150	2
Tack Lee Road	Yapton	30	0
Wooldridge Walk POS*	Yapton	0	3
TOTAL		33,484	513

Deviations & additions to the planting plan

- 1** Replacement for trees subject to Tree Preservation Order – to be agreed with the local planning authority (LPA). (May also be subject to conditions of consent or represent a legal duty as described in The Town and Country Planning (Tree Preservation) (England) Regulations 2012)
- 2** Replacement for trees felled within a conservation area - as per agreement with LPA
- 3** Where necessary to preserve and sustain established, prominent local tree groups (landscape features) of high amenity value
- 4** Where necessary to perpetuate a prominent single tree (specimen of local importance) feature
- 5** Some removal of established trees for whatever reason can create an opportunity to relieve ourselves of a maintenance burden (where the cost of retention outweighs the present amenity/ environmental value). In this event, and where an alternative tree type would not satisfy our criteria, a new more appropriate location should be sought nearby. This will be considered as an addition to the approved planting plan and within the same ward
- 6** Where an additional opportunity presents itself, which may include open space adopted during the duration of this plan, and only with the approval of the council's arboricultural officer
- 7** Where a suitable opportunity presents itself, the consideration of strategic land purchase to expand the remit of planting proposals under this plan

Outcomes

Key outcomes from the delivery of this strategy and planting plan will include;

- 1** The planting of a minimum of 33,000 whips and 500 standard trees across the 10 year plan
- 2** A Carbon sequestration calculation of 1,942,300 kg based on the proposals under this strategy¹
- 3** Raising the profile of climate change and the benefits of trees by delivering a number community planting events across the district and over the course of the strategy

¹ All trees are great environmental contributors they are all doing their bit to lock up carbon by taking carbon dioxide out of the air and converting it into their structures. Calculation is based on 'Barcham Top Trunks' which gives a guide to the extent that carbon is stored per variety. The measurement is the estimated maximum dry weight of carbon at maturity, i.e. the longer a tree lives and the larger it gets the more contribution it delivers.



