

Redshaw Advisors Project Overview

Help Redshaw Advisors plant **24,000 Trees** in the UK

Why plant trees in the UK?

Your support is more crucial than ever before - UK woodlands are at risk because of climate change, pests, diseases, and challenging planting conditions. Last winter, storms Eunice and Franklin brought down millions of trees; an area equivalent to 10,000 football pitches was damaged. Landowners need all the support they can get to plant climate resilient trees for the future. This is why Redshaw Advisors has chosen to support the planting of 24,000 trees in one woodland in the National Forest, in partnership with GreenTheUK and the Royal Forestry Society. Sign up today and your business could be part of this story too.

The Project:

24,000 new trees will be planted between October 2023 and April 2024 thanks to Redshaw Advisors' support.

Site Description:

The site is over 10 hectares in size. The woodland was originally planted as a commercial poplar plantation but it has suffered severely from disease. Currently, the woodland areas affected are not sustainable and require a clear fell and restock intervention.



Location:

The woodland is close to the village of **Stanton under Bardon** in the National Forest. The National Forest is right in the heart of England, embracing 200 square miles of the Midlands. It spans across parts of Derbyshire, Leicestershire and Staffordshire and aims to link the two ancient Forests of Charnwood and Needwood.



Who owns the land?

The landowner is a forestry contractor and business owner who has the skills and resources to maintain the trees.

Project objectives:

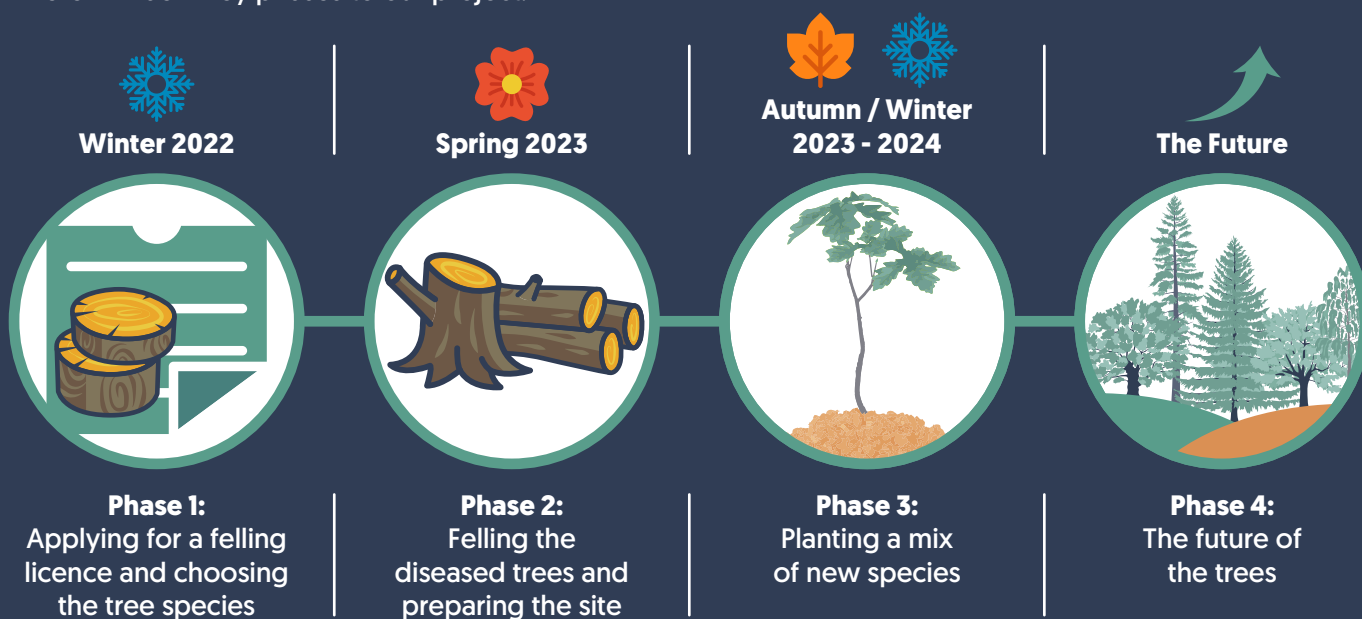
- to plant 24,000 trees in the National Forest in 2023-24
- to protect against pests and diseases by replacing dead and diseased stands
- to optimise the climate resilience of the woods by increasing the species diversity and moving away from monoculture crops
- to grow quality trees for the future

Benefits of this project:

- Climate adapted/resilient woodland
- Pest or disease adapted/resilient woodland
- Carbon sequestration and storage
- Gain in biodiversity
- Diversification of existing woodland [species and/or structure]

As we have chosen to support a woodland affected by a lethal tree disease, we have some preparatory work to do before planting our trees.

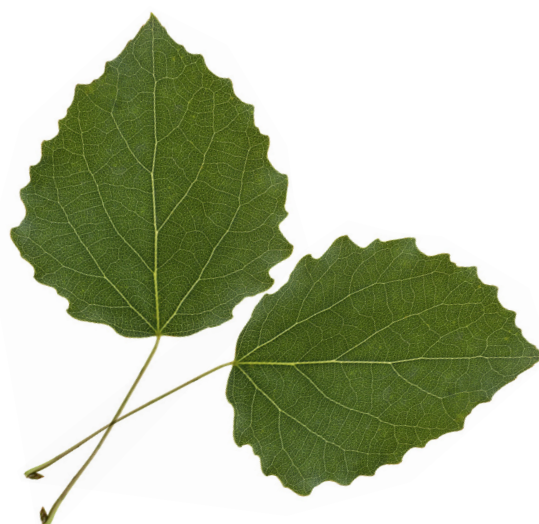
There will be 4 key phases to our project:



PHASE 1: Preparation applying for a felling licence and choosing the tree species

The woodland is close to the village of **Stanton under Bardon**, where existing trees have been badly affected by a **fungal disease**, which causes physical deformities that will eventually lead to the death of infected trees. The area was originally planted with poplar and these **dying trees now need to be removed to prevent infection** of other poplars nearby.

Diseased vs healthy poplars:



When felling any tree, it's important to consider all the different elements of sustainable forest management including biodiversity, climate change, the historic environment, landscape, people, soil and water. The owner must apply for a **felling licence from the government** and submit evidence to show that he has considered any impacts of felling the trees (e.g. any damage that could be caused by large machines or the impact of the loss of the trees on the landscape). Once the felling licence is approved, this means that the government is satisfied that the **felling operation will be sustainable**.

The owner of the woodland wants to **futureproof the forest** by planting a diverse mixture of tree species that will not be affected by the disease that is killing the poplar. The quality of wildlife habitats and biodiversity offered within these woodlands is currently low due to the failed poplar crop. Therefore, the planting plans include lots of **native species**, such as field maple, hawthorn, hazel, hornbeam, oak, silver birch and cherry which are **great for local wildlife**. Planting with a wider range of predominantly native broadleaved species, complemented by some conifers, will increase the diversity and create a sustainable woodland. The new planting will also include **some non-native species**, such as grand fir and western red cedar, which are expected to be **resilient to extreme weather caused by climate change**.

Trees become susceptible to different pests and diseases over the course of their lifetimes. In the same way that some humans are more susceptible (or resistant) to different diseases, or how different diseases have different levels of severity in children and adults (e.g. chickenpox), **trees will also react differently to pathogens**. Some diseases only affect certain types (species) of trees and some will only affect older or younger trees. A tree's **ability to fight a disease depends on** a number of factors, including **how healthy** the tree was before infection (e.g. has the tree been subject to wind damage, damage from animals or drought), the **genetics** of the tree (which determines a tree's natural defences against diseases) and the **severity and length of exposure** to the pathogen.

Woodlands are often planted in blocks and sometimes these blocks are made of of just one species of tree. Quite often, these trees will have been grown in nurseries from plants with the same or very similar genetics. This means that **trees in blocks** like this are all the same age, species and have very **little genetic diversity**. If a deadly pathogen affects blocks like this, the susceptible trees can pass the disease onto one another and the whole woodland is wiped out. To **build resilience** into woodlands, owners are increasingly planting **different species** (with different genetics) and **diversifying the ages** of trees within woodlands by planting young trees under older ones.

PHASE 2: Felling the diseased trees and preparing the site

The existing, **diseased trees will be cleared out this winter** (2022 -23) and the ground will be prepared over the following months to get it ready for the **new trees in the next planting season** (October 2023 to April 2024).

To prepare the site for planting, tall grass and weeds need to be cut back, any dense soil needs to be broken up and the position of the new trees needs to be marked out (so the planters will know where to put them).

Machinery will be used by certified professionals to fell the trees and prepare the ground. Below are some photos of what this will look like in action.

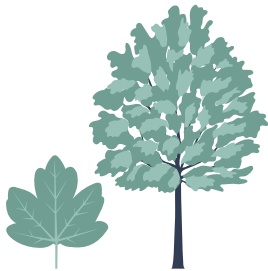


PHASE 3: Planting Season

Planting Plan:

- **Public access routes** will be left **unplanted** as wide 5m rides and mown annually as managed open ground which is **valuable to edge habitat species** such as insects, amphibians and butterflies as well as bats and birds
- The **stocking density** of the woodland areas (2250 plants per hectare) will be restored to create a viable woodland for the future and contribute to **carbon sequestration**
- The **increase in species diversity** will help to deliver **climate resilience** and **greater resilience to pests and diseases**. The species chosen are all 'suitable' or 'very suitable' in line with Ecological Site Classification (ESC) and are likely to perform well under climate scenarios

The species planted will be:



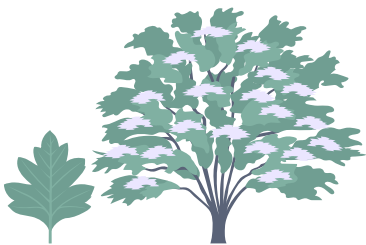
400 Field maple (Acer Campestre)

This species is the UK's only native maple and is often grown as an ornamental tree in large gardens and parks, as well as in woods and hedgerows. Its wood is white, hard and strong, and is popular for making furniture, flooring and musical instruments, especially harps. Field maple flowers are hermaphrodite, meaning each flower contains both male and female reproductive parts.



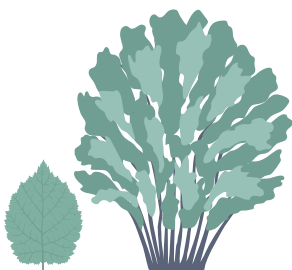
3600 Grand fir (Abies Grandis)

The grand fir is native to the north-west United States and south-west Canada, and the species was first introduced to Britain in the 19th century. Grand firs are seriously impressive trees; they are hardy and grow quickly, in many different types of soil. They can grow up to about 80m tall and live for around 250 years.



400 Hawthorn (Crataegus Monogyna)

Hawthorn is very much associated with the month of May, and the appearance of its bright, white flowers heralds the change from spring to summer. It is prolific in hedgerows, scrub and woodland throughout the UK and Ireland, and a single tree can grow as tall as 10m. In pagan times, hawthorn was a symbol of marriage and fertility, but in the Middle Ages, it was never brought into homes, as people believed it was a harbinger of illness and death.



400 Hazel (Corylus Avellana)

The common hazel is native to Europe and western Asia and forms an important part of England's hedgerows. We have all heard of hazelnuts, which are rich in unsaturated fats and protein, and an extremely popular ingredient in many of the world's cuisines. Did you know that hazel trees were once seen as both magical and a symbol of fertility?

2400 Hornbeam (Carpinus Betulus)



The hornbeam is extremely tough and keeps its leaves all year round, making it an attractive proposition for birds, insects and other animals.

Hornbeam wood is very hard, in fact it is also known as “ironwood” and the Romans recognised its durability, using it to make their chariots.

Nowadays, this timber is used for tool handles, coach wheels, parquet flooring and chess pieces!

3600 Norway spruce (Picea Abies)



This fast-growing evergreen conifer can live for as long as 1000 years and grows to a height of up to 40m.

It has red-brown cones, which are the largest of any spruce tree.

In 1848, Queen Victoria’s husband Prince Albert introduced the custom of decorating a Norway spruce for Christmas, and it has been a popular festive tree choice in the UK ever since.

3600 Pedunculate oak (Quercus Robur)



Also known as the common or English oak, this is the undisputed king of the woods, supporting more wildlife species than any other native tree in the UK.

“Robur” in this oak’s Latin name means “strength” and “hard timber” because this tree produces incredibly durable wood which can be used to make many things, including furniture and flooring.

The oak has been considered sacred by many gods in mythology throughout the ages.

2400 Silver birch (Betula pendula)



The silver birch is an elegant, majestic-looking tree which can survive in a range of climates, making it a very popular choice for gardeners.

It attracts hundreds of insect species, and woodpeckers like to nest in its rough, tough, silver-white trunk.

There is a lot of mythology attached to the silver birch, which is said to symbolise purity, new beginnings and protection. Once upon a time, on Midsummer’s Eve, silver birch boughs were hung across the doors of houses to bring good luck to their residents.

2400 Sycamore (Acer Pseudoplatanus)

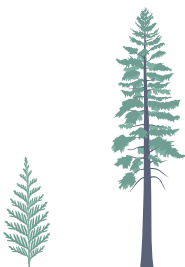


Sycamores can live for 400 years and are attractive to aphids and their predators. Their seeds are very fertile and float to the ground like little helicopters.

Sycamore timber is pale cream in colour and good for carving, which is why it is used for making traditional Welsh lovespoons.

Fans of the children’s author Julia Donaldson may know that her popular character Stick Man and his family live in a sycamore tree!

2400 Western red cedar (Thuja Plicata)



The western red cedar’s strength is celebrated in Native American cultures, and it attracts and shelters many species of birds and insects.

Its timber is extremely durable, making it a good source of building materials.

If you take a bit of western red cedar foliage and crush it between your fingers, it gives off a sweet smell like pineapple.

2400 Wild cherry (Prunus Avium)



Stunning white cherry blossoms burst forth in April, heralding the arrival of spring and bringing joy to parks and gardens.

Mature cherry trees can live for up to 60 years, and provide a great source of food for birds, bees, insects and small animals like badgers and mice.

Our ancestors would boil wild cherries and make them into a syrup to treat a range of ailments including coughs and anaemia.

PHASE 4: The Future of the Woodland

To ensure the woodland thrives into the future, we have got a care plan in place which includes:

- Individual tree **shelters** and **stakes** will be used to protect the trees from rabbits and hares
- A twice yearly **herbicide** spot application to each tree station to reduce weed competition
- If required the rows will be **inter-row mown** depending on vegetation growth
- **Dead trees will be replaced** for the first few years
- **Pests** such as deer and squirrels will continue to be controlled across the estate

Each species will reach maturity at a different age and is likely to be used for something different in the future:

Tree Species	Age at Maturity (could live to this age)	Potential Future of Species
Field maple	50 [250]	Biodiversity and landscape [foliage is very ornamental]
Grand fir	25 [250]	Construction lumber or plywood [contributing to UK timber industry and carbon capture]
Hawthorn	50 [400]	Biodiversity [flowers are particularly beneficial]
Hazel	10 [80]	Biodiversity [hazel nuts are particularly beneficial]
Hornbeam	80 [200]	Biodiversity and high quality furniture wood
Norway spruce	20 [400]	Fuel chips
Pedunculate oak	100 [1,000]	Biodiversity and high quality furniture/construction wood [contributing to the UK timber industry]
Silver birch	20 [100]	Biodiversity and landscape [white bark is very ornamental]
Sycamore	50 [400]	Carpentry wood, flooring and worktops
Western red cedar	70 [1,000]	Wood for outdoor use [fencing and decking]
Wild cherry	15 [60]	Biodiversity and high quality furniture wood

Benefits of these different uses

UK Timber Markets

The **UK** currently **imports around 65%** of all of the **wood products** (e.g. timber, board, paper and card) that are consumed here. Many of these products (particularly wood chip and plywood products) come from non-EU countries such as the USA, China and Brazil. As you can imagine, importing millions of tonnes of wood into the UK incurs a **high cost of carbon**, which could be avoided if we are able to grow trees in the UK that can be used to replace these imported products.

The **trees in this woodland will be planted with a purpose**. Softwood from conifers is likely to be used for **woodchip** (heating) and **lumber** for carpentry and other (more slow growing trees), could be used for **high quality timber and furniture**. While these trees are growing, they are taking carbon from the atmosphere and locking it away in leaves and branches. **When timber is cut, the carbon remains locked away unless the timber decays or is burned**. Even though some of the softwood trees will be used for **woodchip**, this is a much **more sustainable cycle than importing fuel from Brazil or burning environmentally damaging fossil fuels** (as the trees will be replaced and the cycle will start again).

Biodiversity

The **mix of trees** in the newly planted woodland will **directly benefit biodiversity**. Some of these trees will likely never be cut for timber, and will continue to capture carbon from the atmosphere and lock it away until they come to the end of their natural lifespan and start to decay. All the trees in this woodland will help to provide **habitats and food for native wildlife**. By planting a mix of native and non-native tree species, the landowner is helping to ensure that there are plenty of familiar trees for wildlife and others that will be more resistant to severe weather brought about by climate change.



Animal species which are likely to thrive thanks to this new habitat include:



Mammals

Badger (*Meles meles*)



This black and white striped mammal is the UK's largest land predator, and can be found living all around the country.

Badgers make their homes underground in networks of burrows and tunnels known as setts, with the same family occupying the area for generations.

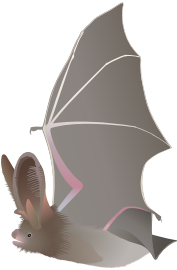
It can be tricky to spot badgers in the wild because they are nocturnal, but during warmer weather in the summer, they occasionally emerge just before sunset.



Natterer's bat (*Myotis Nattereri*)

Natterer's bats are medium-sized with fairly long ears, and although quite rare, they live all over the UK.

They feed on insects, many of which they forage straight from the foliage around them. They hibernate in small rock crevices, often in groups, and can contort themselves into all kinds of weird and wonderful positions.



Brown long-eared bat (*Plecotus Auritus*)

As the name suggests, these medium-sized bats have huge ears: nearly as long as their bodies, in fact!

They have grey-brown fur and like to roost in old buildings and holes in tree trunks. They prick up their ears when they are flying to aid with hunting, but can roll them back when resting and even tuck them under their wings.

Birds

Green Woodpecker (*Picus viridis*)



The large green woodpecker has a bright red crown and a black moustache.

Green woodpeckers don't actually peck that much wood, because they have fairly weak bills.

This bird used to be known as the "yaffle", which is how the animated, carved woodpecker bookend - Professor Yaffle - got his name in the classic 1970s children's television show "Bagpuss".





Reptiles and amphibians

Smooth Newt (Lissotriton Vulgaris)



You'll find these newts throughout Britain and Ireland, where they are protected by law. Adults head for ponds to mate and generally stay there from February to June. The female smooth newt wraps each of her eggs in an individual pond weed leaf to keep it safe.

Great Crested Newt (Triturus Cristatus)



The UK's biggest newt is dark brown or black and covered in warts. Males dance on their front legs and wave their tails when trying to court females. The animals and their eggs, breeding sites and resting places are protected by law.

Common Frog (Rana Temporaria)



Common frogs have smooth skin and are most active at night. This clever amphibian uses its long, sticky tongue to catch insects like worms, slugs and snails. Garden ponds are very important for common frogs and suburban populations depend on them.

