

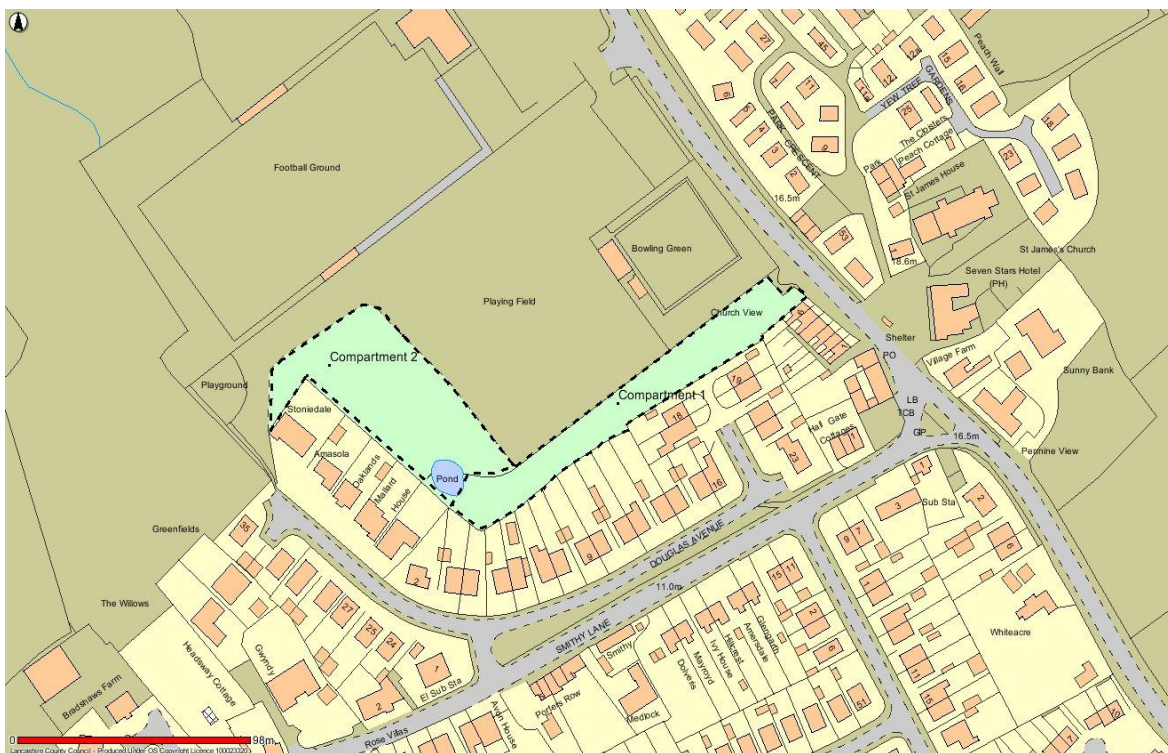
Stalmine Woods: abbreviated management plan.

1.0 Site characteristics – a woodland of two halves.

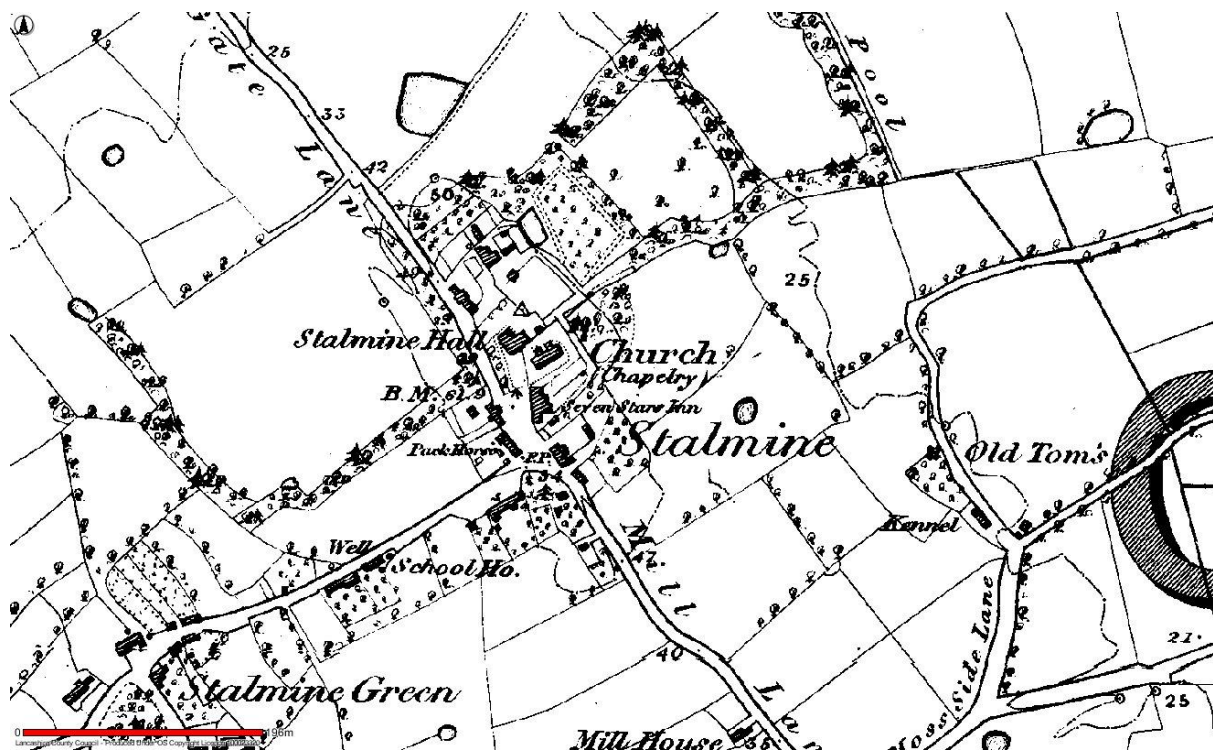
Stalmine wood is almost two woods of very different character. The map below divides the site into two compartments, with Compartment 1 containing older species usually of exotic, rather than native, origins. It has the character of a planted site of the type that often accompanied large houses in the eighteenth and nineteenth centuries but which has now tumbled down to woodland of sorts. Numerous mature common limes exist here, as well as self-sown sycamores, among which some elm, oak and holly occur. Compartment 1 has a defined footpath and is evidently well-frequented.

Compartment 2, while it builds on what was apparently a linear strip of trees that have been there since the nineteenth century, is much more recent and of entirely native species. It appears the trees are perhaps twenty-five years old and comprise ash, willow, alder, oak, hazel and birch. The willow element appears self-set rather than planted and are probably endemic to the site. The area lies at the bottom of a sloping field and is consequently wet, but in general the trees have established well and were appropriate choices for this part of the site. Access to this woodland is possible but less attractive owing to the conditions underfoot. An informal footpath/desire line permeates the compartment but appears to be less frequented than the clear footpath through compartment 1.

Allowances must be made for the timing of the survey, but it does appear that common to both compartments the ground flora is not rich, with prevalent ivy and bramble in compartment 1.



Historical maps indicate trees were present on this site in the nineteenth century – see below, which is excerpted from an 1845 map.



The trees were evidently in linear pattern to form a right-angled shelterbelt and screen for Stalmine Hall, and were probably part of a planting scheme rather than native woodland. The woodland features a pond that was present on the 1845 map. Here's the woodland as it was in the 1960's:



Compartment 2 in its expanded form presumably came about after landscaping to the playing field changed levels at this part of the site. Total area for both compartments is approximately 6086 square metres.

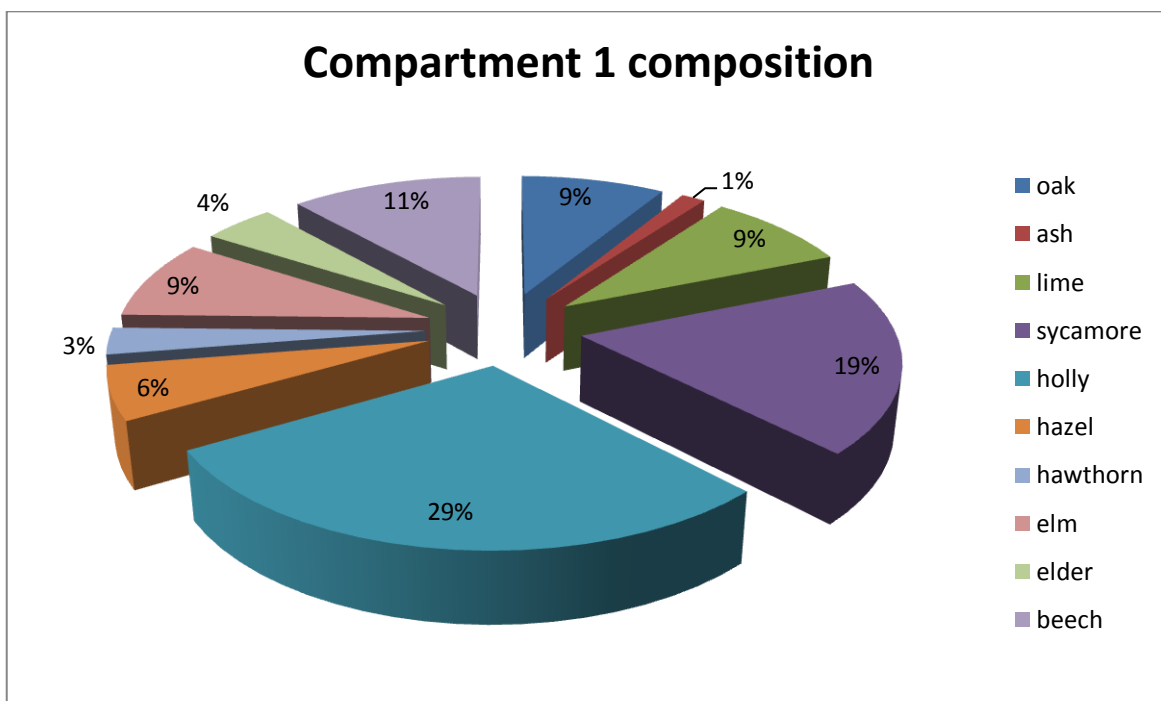
2.0 General Woodland Management Goals

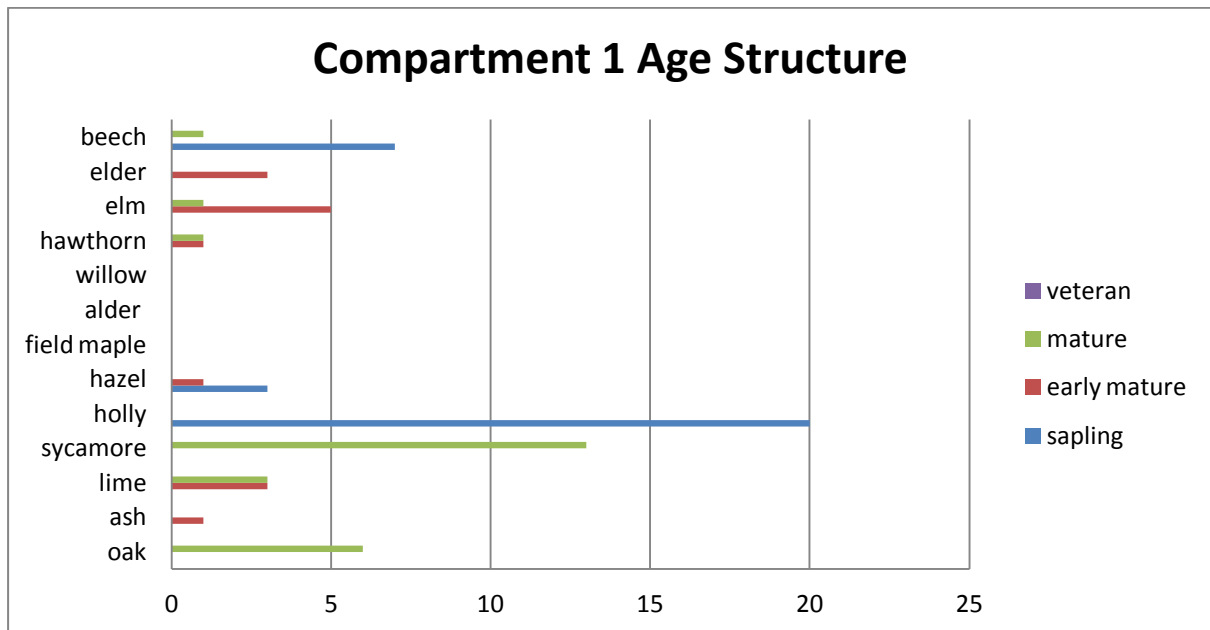
Woodlands in local authority ownership are usually managed to produce two outcomes – public amenity and biodiversity value. It's these two aims that drive management decisions. To manage the site effectively resources should focus on the following aspects:

- Public amenity – footpath maintenance and clearance of litter etc
- Neighbourliness – pruning of severe overhang to properties
- Tree risk management - surveying for hazard trees
- Gradual reduction of non-native trees such as sycamore, horse chestnut etc
- A programme of selective thinning where appropriate
- Replanting, where appropriate, with native species trees
- Silvicultural tasks such as the recruiting of self sown native trees into the whole woodland.
- Pond maintenance
- Retention, where it is safe to do so, of dead standing trees for wildlife and the creation of habitat piles from felled timber.

3.0 Snapshot of woodland composition and age structure.

What follows is based on a walk-through random survey of both parts of the woodland but will deliver insight into both what types of tree make up the woodland and the age structure of the two compartments. Data from these can be used to derive woodland management aims, but remember this was a sample not an inventory, so not every tree is represented.





Analysis of compartment 1.

Composition.

The pie chart reveals reasonable diversity of species but with some key gaps both in terms of understorey trees – there are few hawthorns, hazel, and field maple for example, and no yews were recorded – but also the presence of trees such as common lime, which are usually male clones and will not give rise to natural regeneration. Their eventual decline needs to be anticipated and succession planting of different, fertile, species should be planned.

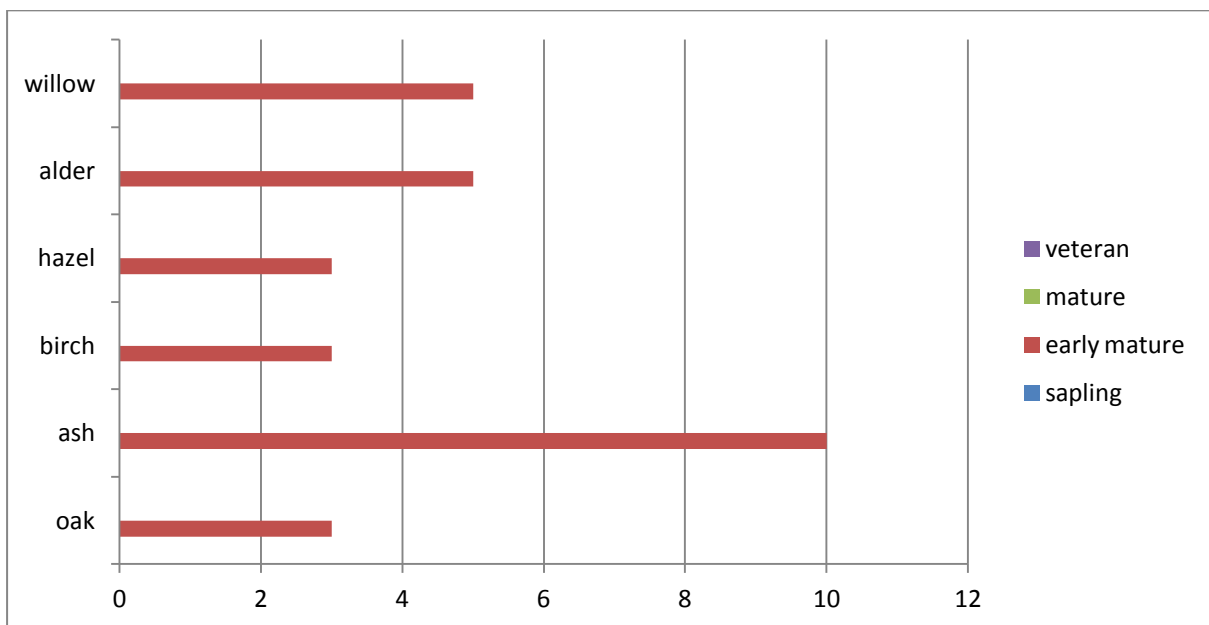
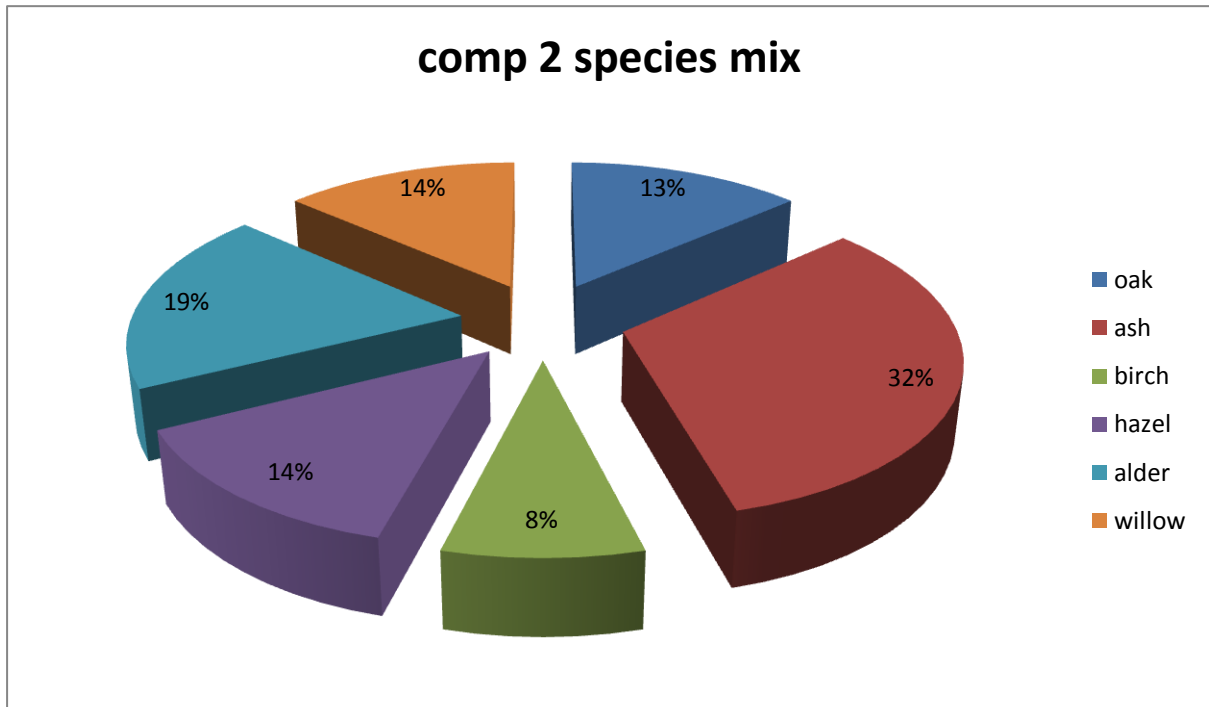
Age Structure.

The age structure chart reveals that while there is a strong holly element in compartment 1, which provides a welcome evergreen component, most are at sapling stage. In point of fact the hollies generally occur as a localised group (bird distribution?) and many young ones could be transplanted and re-spaced throughout both compartments to balance the evergreen element. Sapling cherries at this location are similar – clustered, when they should ideally be spaced at large intervals, evidently planted but in too shaded a place, and unlikely to become trees of good form.

Encouragingly, both early mature and sapling stage wych elms are in evidence. The species is endemic to our area, has some field resistance to elm disease, and is a relic of the ancient woodland that would once have covered much of Wyre. This tree, and the willows near the pond, probably offer the strongest clue to the original makeup of the site before changes in land use began to affect all but the least exploitable parts of it.

There's a reasonable ash population on site and, like elm and sycamore, this species with its prolific wind-blown seeds is usually adept at colonising woodlands and is a good competitor for the

aggressive sycamores. As with most of Wyre's woodlands, the latter tree is dominant here, and will require some control to prevent it overtaking native trees, as is typical in woodlands elsewhere.



Compartment 2 age structure by species

Analysis of compartment 2.

Composition .

Essentially fairly recent plantation of native species trees.

The species chosen for this wet area imply some insight into site conditions and in effect there is little to be done to improve overstorey tree species selection because those employed are suited to the ground conditions. Oaks have sensibly been planted to the periphery where they are in drier ground, while the majority of other species are pioneer types well-adapted to wet conditions. Ash is prevalent. Shade-tolerant understorey trees such as holly, yew, field maples or hawthorn seemed almost absent, with only occasional hazels. This should be rectified with planting but the wet ground conditions must be borne in mind. Yew for example would not thrive here unless sited away from the water collection areas.

Age structure.

Even-aged. This means without natural regeneration or new planting all the trees will decline and die around the same time, with perhaps the ash element remaining because it lives longer. But ash dieback might change that demographic.

The absence of a regenerative layer needs addressing, because the alders, birches and willows don't demonstrate longevity (ie at 80 – 100 years the trees are usually in decline or dead), and you therefore need a new generation of trees arising naturally from the parent trees to ensure sustainable woodland cover. This wasn't observed during sampling but is unusual given the fecundity of species such as alders and ash, which generally produce volumes of fertile seed and therefore a thriving population of young trees beneath the parent generation. Ash however are *very* unpredictable in their gender and fruiting: it is possible the ash in this compartment are all male, all female, or are infertile. The species may change sex, or feature female branches on a male tree or vice versa, so a wait-and-see approach might be judicious. At present, despite their being above the age of sexual maturity, no ash trees appear to be bearing seed, and the only regeneration witnessed is re-growth from a cut stump or two.

Lack of a regenerative layer of alders, willows and birches could signal that in practical terms only ash trees, which have the potential to outlive them considerably, will remain in compartment 2, and a lack of species diversity – ie a monoculture - should be seen as undesirable. Monocultures are generally not biodiverse, therefore less useful to wildlife, and are easily extinguished by species-specific diseases - thus the possibility of ash dieback affecting the trees in this compartment might render it quite sparse if there are no younger alders, willows and birch to backfill. Even without ash dieback it appears the substantial ash component will be an aging one because they are not bearing seed.

4.0 Management Recommendations:

Compartment 1.

- Complete and record an annual tree risk inspection and carry out any identified tree work as soon as reasonably practical;
- Remove or make safe dead or decayed standing trees close to well-used areas. Retain those that do not pose any hazard for wildlife value;
- Control by removal or herbicide any natural regeneration from sycamores;
- Lift and re-space the colony of holly saplings – use in both compartments;
- Consider removing or re-spacing the colony of beech saplings. These may not transplant however.
- Create some small clearings by felling non-native trees sycamores preferably, and replant with native transplant trees – oak, (ash if feasible), alder and willow in damp areas that are open to the sky. Introduce some understorey species such as field maple, hazel, yew and hawthorn. Numbers depend on space.
- Try to harvest some elm regeneration or elm seeds to use elsewhere about the woodland.
- Arrange a volunteer litter pick of the most used area;
- Consider pruning back overhang to neighbouring properties.
- Remove accumulations of leaf litter deposited against mature trees near the entrance.
- Sever ivy on selected trees and consider reducing the percentage of ground covered with ivy.
- Try scattering a woodland species wildflower mix to increase ground flora diversity - good activity for children and volunteers.
- Consider ring-barking some large sycamores to create 'veteranised' trees for wildlife

Compartment 2.

- Complete and record a tree risk management inspection on a three-yearly basis and review frequency when trees are larger or if target frequency/foot traffic increases;
- Fell to create some clearings and replant with native alder, willow and ash transplants. (Would recommend trees of local provenance.)
- Fell, by selective thinning, a percentage of ash trees to open the canopy to more light.
- Improve the understorey with some more hazel and holly;
- Fell some trees to reveal the pond area to better light;
- Lave the large dead willow by the pond as habitat for wildlife
- Cut up and stack some fallen trees to make habitat piles;
- Scatter some shade-tolerant native wildflower seeds to increase ground flora diversity.
- Litter pick as at C1.