Wokingham District Veteran Tree Association

Sixty Diamond Jubilee Oak Trees

Joint Project with Wokingham Borough Council

Ten-year review

2012/13 to 2022/23

Trees planted in 2012 or 2013

Diamond Jubilee Tree #21 Woosehill Spine Road, Wokingham 2012

Welcomed by Councillor Angus Ross, Stephanie McKay, (Hawthorns and Forest School teacher), WDVTA members, Hawthorns School students and parents

Trees surveyed in 2022 or 2023

Diamond Jubilee tree #21 ten years on in 2023 – a successor to the dead tree

1. Background to the project

In June 2012 Councillor David Lee, Leader of Wokingham Borough Council (WBC), invited members of Wokingham District Veteran Tree Association (WDVTA) to collaborate with the officers of the Borough Council Trees and Landscape team to plant 60 standard English oak trees across the borough to celebrate the Queen's Diamond Jubilee. Barbara Stagles agreed to act as WDVTA Jubilee Trees coordinator and she enlisted the support of local volunteers. Oliver Ward and his team at Heartwood Tree Surgery, Riseley, were contracted to carry out the planting and maintenance of the trees.

The project proved a good opportunity to plant trees in places where it was hoped they could grow to their full glory. Well over 200 splendid old trees had been lost in the borough in previous years and others faced threats from ground compaction by roads and paved areas, heavy pruning, and also disease. It was thought important to try to compensate for these lost trees as far as possible as well as to enhance the local treescape. The new trees might also help remind people of Wokingham's history as part of Windsor Forest and give pleasure for decades, if not centuries.

Lost Veteran English oak, Holt Lane, Wokingham

Recorded as MRN 452 in the WDVTA Survey Map

1.1. The Sites

Some 50 suggestions for sites were received by a project team consisting of WDVTA members and WBC officers and, after careful consideration, it was decided that trees should be planted on 44 sites including public open spaces, churchyards, nature reserves, roadside verges and schools. In four sites groups of three trees were to be planted and in five sites pairs of two. Care was taken to ensure the chosen sites were as well distributed across the district as possible. The map on the WDVTA website shows their eventual positions.

NB Every tree has been given a number preceded by a hash.

1.2. Buying and Planting the trees

The trees were bought in June 2012 from Barcham Trees, Cambridge and they were planted by Heartwood Tree Surgery, project subcontractors, in the winter 2012/13. The firm was contracted to monitor and maintain the trees for five years. When planted the trees were between five and seven years old and 3 to 4m tall. Each tree was recorded in the Woodland Trust's Royal Record and was labelled with a numbered memorial plaque fixed to a wooden base as below.

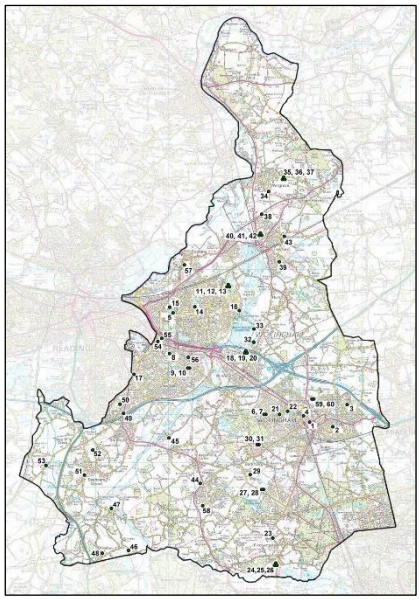
One of the plaques

1.3. Planting celebrations

During 2012/2013 planting ceremonies, including community groups, took place in the 44 sites. The first ceremony was held at WBC offices at Shute End on 24th November 2012 where the Mayor of WBC, Councillor, Bob Wyatt, officiated.

At the ceremony in Cantley Park in March 2013, Cllr David Lee, WBC Leader and initiator of the project, welcomed trees #59 and #60. He was accompanied by Barbara Stagles, WDVTA Jubilee Tree Coordinator.

1.4. WDVTA website records



On the WDVTA website there is an interactive map of the locations of all the tree sites, together with links to photographs and some details about the trees, planting events and ceremonies. The website is regularly updated to record subsequent developments concerning the trees, including photos taken in 2017 for the 5th review and this 10th year review.

WBC and WDVTA published a Diamond Jubilee Tree leaflet about the plantings and this can be downloaded from the website.

1.5. Local benefits of the project

As well as the trees being widely welcomed for their own sake, the planting and associated events generated considerable community interest among voluntary groups and local residents. All the sites were, and are, attractive and environmentally valuable and many have an interesting history. The presence of the Jubilee trees may well have encouraged people to visit previously unknown places. In some instances it has led to further improvements to the sites, such as additional tree planting. Notable examples of the latter are the attractive extended avenue in Burnmoor Meadow, Finchampstead from trees #24, #25 and #26 and the number of new trees planted along the Eversley Road, Arborfield associated with tree #44. In Elizabeth Park, Barkham, many more young trees now grow near trees #30 and #31.

Avenue at Burnmoor Meadow including Jubilee trees #24, #25, #26

1.6. Five year interim review

In 2017 Barbara Stagles and Stephanie McKay visited all the sites and photographs of the trees were added to the website. At this stage fifty-seven of the trees were thriving. Two had been replaced by courtesy of Barcham Trees. Tree #25 in Burnmoor Meadow, Finchampstead had a root canker and the replacement tree was doing well. #47 in Swallowfield Recreation Ground had failed for no known reason and at that point the replacement was doing well. Later this new tree failed so a new tree was planted in Swallowfield Meadow in 2022. One of the trees in Ashenbury Park, #11, had died and it was thought this might have been related to soil contamination as the land had once been a rubbish tip. Investigations were started to obtain a replacement and plant it in another part of the park near where Jubilee trees #12 and #13 were flourishing. This new tree was planted in 2018. For photographs and details of all the replacement trees see section 2.15.

2. Ten year survey

2.1. The survey procedure

In 2022 Barbara Stagles and Stephanie McKay carried out a more extensive survey of the trees. This included recording their general condition, girth and height, crown shape, condition of leaves, branches, trunks, bark and root cover. Observations were made of the size and condition of acorns, including their deformities, as well as the presence of oak galls. Also noted were varieties of lichen growing on the trees and evidence of animal life such as ants and other creatures. Possible risk conditions such as proximity to main roads, susceptibility to drought, animal damage, root compaction, invasions of other plants or vandalism were recorded, including changes to the sites since the planting. Photographs were taken.

The main part of the survey was carried out in late September and October 2022. A few further observations were made in 2023. The surveyors have been very grateful for advice, commentary and technical support from WDVTA colleagues and friends. Every effort was made to be as accurate as possible but they recognised the limitations in their capacity to do more than record an informed amateur appraisal of the condition of the trees. Many of their observations, such as the presence of disease and damage to leaves and bark and the identification of lichen and mosses and other plant and animal life required specialised knowledge. The observations did, however, lead to interesting questions as to why some trees were flourishing better than others and whether other factors were at play, such as soil conditions or air pollution, which would require much more sophisticated study.

#28 Rooks Nest nature reserve

2.2. Trees surveyed

This analysis refers specifically to observations of the 56 original trees. As indicated earlier details of the four replacement trees are summarised separately in section 2.15.

2.3. The sites and their changes

Most of the sites have remained the same, though many, unsurprisingly, have much more natural growth, grass and other shrubs, around them. The only site that had changed was that for tree #47 in Swallowfield as noted in section 1.6.

Except for three, all sites were fairly easily accessible - with car parking not far away. The site in Addington School grounds, Woodley (#5) had always only been accessible with permission from the school but now this also applied to tree #52 at Ryeish Playing Field as the site has been enclosed in the Oakbank school grounds. Tree #45 at Hall Farm in Arborfield has never been accessible by car without permission via the Reading Road gate, but it can be reached on foot from Church Road.

There have been a few changes to sites that might have affected the growth of the trees. Tree #16 at Sandford Lane, Woodley now has an estate immediately behind it, but it still grows in a good sized grassy plot. Tree #32 at Dinton Pastures, Winnersh, is no longer on a golf course and is now alongside a busy footpath near the refreshment centre. Tree #33, also at Dinton Pastures, has probably been slightly affected from being near to the recent major building of a new activity centre.

#16 Sandford Lane – new houses

#33 Dinton Pastures – new activity centre

2.4. The general condition of the trees.

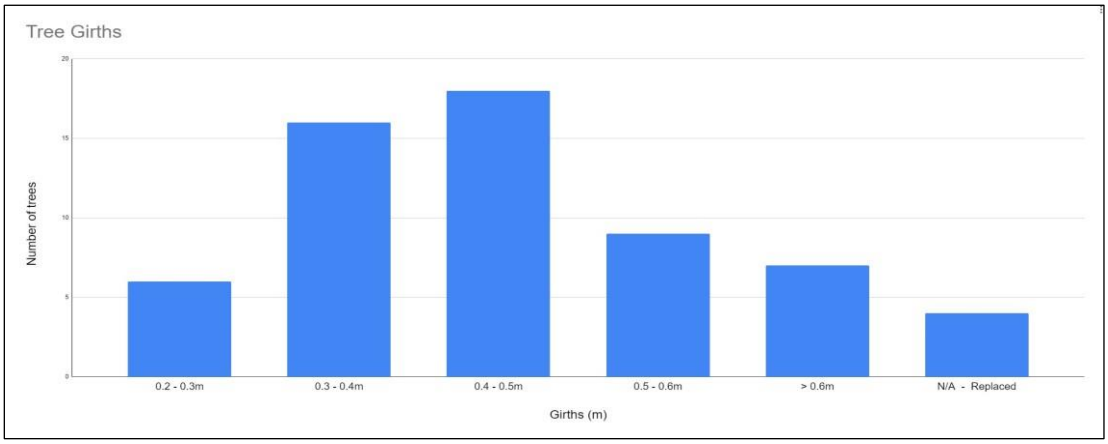
This was a simple appraisal of the overall impression the surveyors had of the general health of the trees. 19 were thought to be in excellent condition (including #23 and #51 below) and 22 in good condition. Two thirds of the sample were therefore thought to be doing well while another 9 were assessed as OK. 5 trees were judged to be in a somewhat poor condition and requiring monitoring. Only one tree, #15, in Bulmershe Park, Woodley was doing badly and at risk of not surviving. See section 2.8.

#23 Finchampstead Church Green

#51 Spring Gardens Shinfield

2.5 Girths

One of the indicators of the age of trees is their girth at 1.5m. None of these trees had reached 1m but, although they were of comparable age when planted, there were significant variations in girth, ranging from 22cm to 66cm.

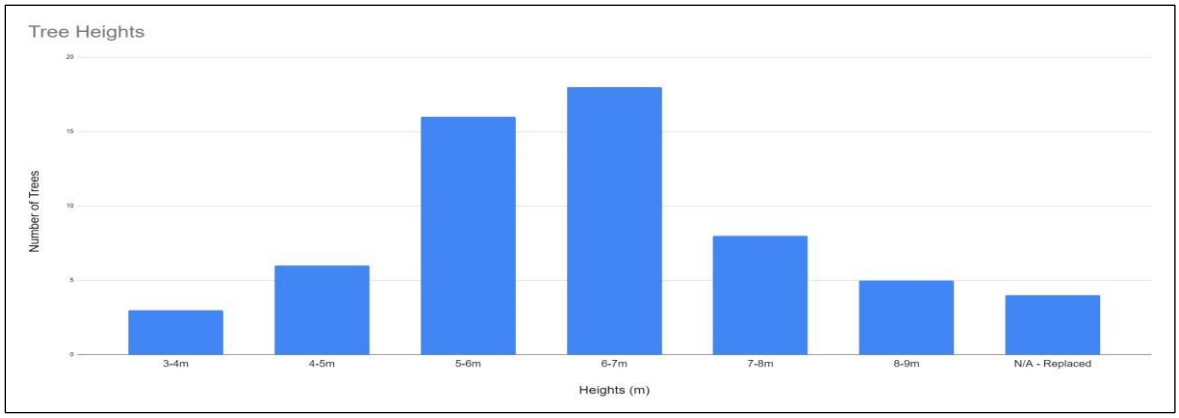


Trees with the largest girth were in Burnmoor Meadow and Church Green, Finchampstead (#25 and #23), St Pauls Churchyard (#4), the park off Chestnut Avenue (#6) and Riverside Walk (#22) in Wokingham and Rooks Nest Wood Country Park, Barkham (#28). The girths of three of the trees assessed as in poor condition had girths less than 35cm.

2.6. Heights

It was quite noticeable how different were the heights of the trees ranging from 3.4m to 8.4m. We did not have a measurement for the height of the trees when planted but it was likely to have been around 3-4m tall.

The tallest tree at 8.4m was #6 in the park off Chestnut Avenue closely followed by #4 in St Pauls Churchyard, #27 and #28 in Rooks Nest Wood Country Park and #23 on Finchampstead Church Green. 37 of the trees were 6m or above and 19 of the trees were 5m or below. Two trees were below 4m in height. These were #15 at Bulmershe Park (3.4m) and #49 (3.6m) on the main roundabout in Shinfield.



#6 Field off Chestnut Ave, Wokingham

8.4m tall

#49 Roundabout Reading Road, Shinfield

3.6 m tall

We were not able to ascertain what obvious factors might account for these differences but, as the height of the trees clearly seemed to relate to their general condition, we explore this matter this a little further in sections 2.13 and 2.14. It would be interesting to see if these height differences persist over future years. We have been advised that these are likely to even out in time. Overall we found unsurprisingly that, with one exception, the height of the trees was related directly to their girth – the taller the tree the greater the girth.

2.7. Shapes of the trees

Our judgements about the shape of the trees were informal and subjective. We categorised them as pyramidal, oval or rounded. Most of the trees were pyramidal and regular in shape although of the 38 pyramidal trees we recorded 12 were irregular or lopsided. 7 trees were distinctly oval and 11 trees were rounded. To some extent their shape appeared to be determined by whether they were growing in an open space or close to other trees.

Pyramidal

#42 King George V Field Twyford

Oval

#43 Ruscombe Church

Rounded

58 Tyler Drive, Arborfield

2.8. Leaf cover and health

As the survey was carried out in late August and September it was not surprising to find that many of the trees were beginning to show some autumnal changes. However most were well covered with leaves. We estimated that 40 of the trees showed cover at 75%, 11 with 50%, 4 with 25% and 1 (#15) with 0% cover.

75%

#34, Mumbery Field, Wargrave

35%

#35 Kings Field Wargrave

25%

#53 Grazeley Village Hall

Sadly, tree #15 in Bulmershe Park was almost bare of leaves, though a return visit in 2023 showed the tree with much improved leaf cover and general health. The grounds staff at Woodley Town Council had been alerted and had nurtured the tree.

#15 in 2022

#15 in 2023

Many of the trees had some leaves with differing kinds of damage caused by disease or invertebrates but none of these were particularly extensive. We were not in a position to identify specific types of damage or their cause but made photographic records of our observations. Examples are shown below.

We were advised that it would be difficult to identify these types of damage from photographs but our local experts thought that, as far as could be seen, none posed a serious threat to the trees.

2.9. Trunks, branches and roots

Most of the trees displayed small dead twigs and a few had small broken branches or signs of light pruning. 30 of the trees had one or more bark lesions of various kinds but none seemed to be causing the trees serious damage at this stage. One tree had wire around the trunk which we removed and another had a row of unexplained holes. It is suggested that many of the lesions and holes have probably been caused by mechanical damage.

#55

Sol Joel Park, Earley

#28

Rooks Nest Nature Reserve, Barkham

More concerning was the damage at the base of some trunks. 14 of the trees showed some damage at this point and, in the case of 8 of these, the grass had been cut very short up to the trunk.

#14

Woodford Park, Woodley

#53

Grazeley Village Hall

This suggested that close cutting or strimming could account for this. 5 trees had bare soil around their trunk bases and three of these had trunk damage. The bare soil does not appear to have protected these trees from damage. 33 trees had long grass growing around the base of their trunks and of these only 5 had any trunk damage. Clearly when the grass is long most tree bases are well protected but the question arises as to what happens when the long grass is cleared in the autumn.

Long grass

#60 Cantley Park, Wokingham

Short grass

44 Eversley Road Arborfield

Bare earth

56 Meadow Road Park, Earley

The surveyors have been advised that best practice for the health and management of young trees is to keep an area of uncut grass around the trees equivalent to an area equal to the spread of its crown. Mulching is not recommended but none of the trees surveyed appears to have been mulched. See section 3.

2.10 Acorns and galls

All but 7 trees had acorns growing on them. Of the 49 trees with acorns most had a small number but 12 had an abundance. Overall, acorns varied in size from large to small. There appeared to be no particular relationship between the tree's condition and the number and size of its acorns except that, of the five trees in poor condition, 4 had none or a few small acorns.

Large

Medium

Small

We have been advised that these are natural variations reflecting the different genetic makeup of the trees and of no particular concern with regards to the health of the trees. Indeed it has been suggested many of the difference we have identified between the trees might in part be explained by genetic variation. (Martin Woolner)

The acorns on 10 of the trees showed some abnormalities and 11 of the trees had oak galls. All these had been formed by gall wasps. We understand this is not a significant problem and artificial control of gall formers is impractical. Native oaks '*can tolerate any of over 50 causes of galls on acorns, leaves, bark, roots without their health being much compromised'.* (Martin Woolner)





2.11 Lichen, moss and other epiphyte species

Lichen was to be found on almost all of the trees ranging from a negligible amount on #10 on Rushey Way to a great deal as in the case of #23 on Finchampstead Green where it was prolific. In 44 cases the types of lichen identified were the foliose *Xanthoria sp and Physicia sp* and the crustose *Lecidella sp.* In the other 12 cases only a crustose lichen was to be found, probably also *Lecidella sp.* It was encouraging to find so much lichen on the trees as this can be a sign of good air quality.

Xanthoria sp Physicia sp

Lecidella sp

Significant amounts of moss were rare and only found on two Wokingham trees, #1 at Shute End and #21 at Woosehill Spine Road. No other epiphytic species were observed.

2.12 Ants and other animal species

As our observations were limited, in most cases, to a one off visit for half an hour or so we were not likely to observe many of the creatures that will have visited the trees over the years.

However, ants were very common and they were to be seen on 35 trees running up and down the trunks. We have been advised that these are not a problem and that they are probably '*climbing high in the canopy to milk honey dew from species of aphid which are sucking juices out of the thin bark up high*. *The sugary liquid is the main source of energy for such ants and some of their load is taken down to the nest to feed ant larvae therein'.* (Martin Woolner)

On the occasional tree we spotted earwigs, spiders and other small invertebrates and there was evidence of moles, rabbits and squirrels nearby.

Some of the damage we noticed on the bark of some trees may well have been caused by deer and we have alerted volunteers to this possibility, particularly in relation to trees #25, #36 and #37 in Kings Field, Wargrave.

Apart from a magpie we saw few birds in the trees but this signifies little as other birds may have visited the trees at different times.

Ants

Deer damage?

Unspecified animal damage?

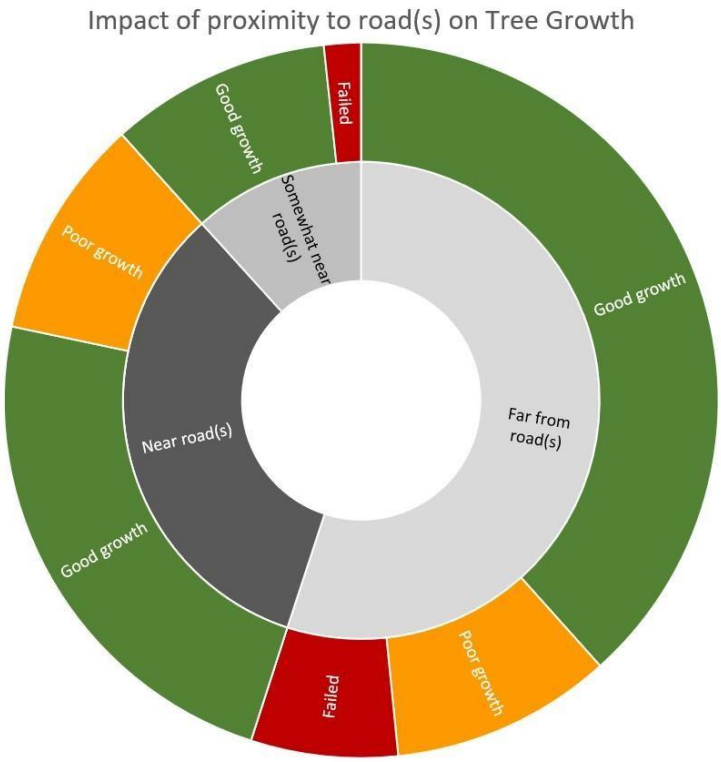
2.13 Proximity of main roads /air pollution

Although many of the sites are well away from daily traffic 10 sites are very close to main roads such as #9 and #44 (below).

9 and #10 Rushey Way, Earley

44 Eversley Road, Arborfield

We wondered, in particular, whether proximity to roads could be related to the condition of the trees, possibly because of problems with air quality and compaction. One of our colleagues drew up the following chart based on the data we collected to see if there was any hint that there might be a causal connection at play.



Green Good growth Orange Poor growth Red Failed

Although we found that about half of the trees showing good growth were indeed far from or only somewhat near roads, these categories also included some trees with poor growth and indeed all four of the failed trees. For this and many other reasons such as the limitations of our sample and the quality of our assessment of the trees' condition, we cannot claim that our study shows any causal connection at work. However this could be one of a number of factors worth following up in future.

2.14 The impact of surrounding vegetation

It was noticeable that trees growing in open conditions in park-like sites tended to grow to a more substantial size and height.

#22 Riverside Walk, Wokingham

#34 Mumbery Field, Wargrave

Some trees were planted quite near other vegetation with varying results. #29 in Barkham Village car park appears to be rather overshadowed by other trees yet #28 in Rooks Nest Wood Country Park has done well in close proximity to a woodland.

#29 Barkham Village Hall car park

#27 Rooks Nest Wood Country Park, Barkham

2.15 The condition of the four substituted trees

As indicated in section 1.6, the trees on four sites were, for various reasons, replacements. We recorded details about these trees but did not include them in the analysis of the condition of the 56 original trees. Two (#11 and #18) were surviving well. The second replacement (#47) in Swallowfield Meadow was at an early stage of growth. The tree in Winnersh Meadows (#18) had yet to be planted at the time of the survey but was in place in 2023. Both these trees will need watering and maintenance for four more years.

#11 Ashenbury Park Woodley (2022)

#26 Burnmoor Meadow, Finchampstead (2022)

#47 Swallowfield Meadow (2022)

#18 Winnersh Meadows (2023)

2.16 Plaques and posts

During the survey we took the opportunity to look at the state of the plaques and posts which had been set in position when the trees were planted. See section 1.2. We found that most of the posts of the trees had become rotten or had disappeared. In a few cases replacement posts had been put in place. New reconstituted posts have been acquired with the help of WBC and the plaques are being attached to them. We are arranging for them to be put in place over the coming months. For a few trees where the plaques have been lost, we will explore alternative ways of labelling them.

Original plaque and post

New positions for plaques

#50 Shinfield Park – a succession tree for veteran oak MRN 432

3. Conclusions

3.1. Threats to the trees

In most cases the trees appeared to be growing in sites where they will be able to grow to their full glory as the years pass. In a few cases, as above, they will serve as replacements for veteran trees when they reach the end of their lives.

However, as mentioned in previous paragraphs, there are clearly some threats to the trees which need to be monitored in the coming years. Specifically we noted:

1. Damage to the base of trunks from strimming grass too near the trees.

2. Damage to bark from animals and insects – and unknown infestations

3. Too close proximity to other vegetation

4. Air pollution from nearby busy traffic

5. Compaction from nearby paths

6. Lack of water in drought conditions (especially for new replacement trees)

3.2. Concluding observations and recommendations

This has been a very satisfactory joint project between WBC and WDVTA. We hope that the trees will continue to flourish in the years to come. We highlight a few general observations which arise from our survey.

1. The survival rate after 10 years of 56 trees of the 60 trees originally planted is very encouraging. Of the remaining 4 replacements, 2 are thriving and, as the other two have only recently been planted, we await reports of their condition.

2. Although there are differences in the general condition of the trees, the majority are doing very well. The five year maintenance programme that was built into the original contract with Heartwood Tree Surgery for the purchase and planting of the trees has proved very effective.

3. Regular surveys have enabled WDVTA members to identify problems, especially at an early stage, ensured that remedial action was taken where needed.

4. In general the trees are growing in safe and suitable sites, though one of the principal dangers to their survival could be too close mowing of grass around the base of their trunks. It would be good if action were taken on this (See section 2.9).

5. It would be interesting to analyse the reasons for the many differences we have noted between the trees, especially that of height, but this would require more professional study including, we suspect, the analysis of the soil in which the trees grow and also the effects of air pollution, compaction and drought.

6. Further surveys at 5 or 10 year intervals could be very interesting and worthwhile.

Barbara Stagles, Stephanie McKay December 2023

With many thanks to Elaine Butler, Alison Griffin, Martin Haslam, Malcolm Inglis, Stephen Loyd, Claire O'Keefe for their invaluable help and advice and to Martin Woolner whose comments we have quoted in a few places in this report.