Visit to Marhill Copse 12th June 2020 – Preliminary Comments

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Introduction.

- The trees in question are numbered T119, T120 and T124. These numbers referred to the numbers indicated in the attached plan that was supplied by Richard Buxton.
- I have been informed by Gareth Narbed and Richard Buxton that it is the intention of the trees' owner to fell them on the grounds of health and safety. The purpose of visit was to make a preliminary ground level visual assessment of the condition of the trees and to consider the risk of harm they may pose to persons and/or property.
- I was accompanied during my visit by Gareth Narbed. Close access to T119 and T120 was not possible as tree surgery works were being carried out on T119 and the surrounding area had been barriered off.
- The trees were viewed from the surrounding woodland as far as was possible, and also from the nearby public highways, and a pair of binoculars was used when viewing the trees from the public highway.
- The trees are located close to the boundary of a woodland with domestic dwellings and gardens on one side, and a footpath on the woodland side.
- I have been informed by Gareth Narbed that the neighbouring dwellings were granted planning permission in the mid-1980's, and were finally built around 2000.
- An online check with the publicly accessible records of Southampton City Council on 6th June 2020 indicated that all three trees are protected by Tree Preservation Order no. 597 as part of woodland number W1 listed in that Order.

- I have been supplied with the following tree reports and documents, but these were not read until my preliminary assessment was completed and my notes written up:
    - Tree Surveys Report SPH/SN/VTA-20/03.02 dated 17th March 2020.
    - Letter from airport ref. Holmes 18.2.20.
    - Holmes table ref 18.2.20 airport letter.
    - Holmes letter 24.3.20.
    - Table 24.3.20 Holmes.
    - Tree Surveys Letter re Marlhill Copse Redacted.
    - Gary Claydon-Bone (Tree Officer) Report.

Findings

T119 - Monterey Pine *Pinus radiata*

- The tree was undergoing tree surgery works at the time of my visit and close access was not possible. However, upon my request, one of the men carrying out this work kindly passed me a branch containing live foliage for me to view closely.
- The tree was growing on a ridge at the edge of a woodland and was a clear skyline feature visible as an individual and prominent tree from numerous public vantage points. Therefore, the tree was of high public visual amenity value.

- The crown was thin in comparison to the neighbouring Monterey Pine, with only two years worth of needles left in the crown i.e. this year's new growth and some of last year's needles, with several areas of discoloured and dead older foliage present. It would be reasonable to expect there to be three to five year's worth of needles in the crown of a healthy tree of this species. This indicates a degree of needle cast disease. By looking at the branch of live foliage, it could be seen that last year's needles were beginning to discolour and develop banding marks around the individual needles. This indicated a condition called Red Band Needle Blight, and although this could not be confirmed without laboratory examination, this species of tree is known to be susceptible to this disease, and the incidence of the disease is becoming more common than in the past.
- Several branch removal wounds of differing ages were present throughout the crown, indicating previous pruning works carried out at different times in the past. One large branch removal wound on the first order branch over the neighbouring dwelling was almost completely occluded, and this branch may have been removed at the time the construction of the neighbouring dwelling was carried out.
- Evidence of significant recent branch breakage was present in the form of a torn-out branch with a fresh wound face. Several older and discoloured branch fracture wounds were present throughout the crown, indicating a history of branch failure. At the time of my visit, the tree surgeons were using rigging techniques to remove a partially broken out branch that was hanging precariously. These observations combine to indicate a history of branch breakage that is ongoing.
- Overhangs the neighbouring property, both dwelling and garden.

T120 - Monterey Pine *Pinus radiata*

- Close access to the tree was not possible, and it could only be viewed from the public highway.

- The tree was growing on a ridge at the edge of a woodland and was a clear skyline feature visible as an individual and prominent tree from numerous public vantage points. Therefore, the tree was of high public visual amenity value.
- The crown seemed thinner than I would have expected in a healthy tree of this species and age, although it was not as thin as the crown of T119. Red Band Needle Blight was considered a likely cause of this crown thinning.
- Several branch removal wounds of differing ages were present throughout the crown, indicating previous pruning works carried out at different times in the past.
- Overhangs the neighbouring property, but mostly the garden rather than the dwelling.

T124 – Monterey Pine *Pinus radiata*

- Access to the base of the tree was possible.
- The tree was growing on a ridge at the edge of a woodland and was a clear skyline feature visible as an individual and prominent tree from numerous public vantage points. Therefore, the tree was of high public visual amenity value.
- Bears a metal tag numbered 0206.
- Leans significantly towards and overhangs the neighbouring dwelling. Significant bark expansion and young bark visible in the resulting vertical furrows on the compression side of the trunk, indicate that the tree is responding to the compressive loads caused by the lean of the trunk by laying down additional reinforcing wood on this side of the trunk.
- Some minor deadwood throughout the crown, as is to expected with this species and age of tree, but very little larger diameter deadwood.
- Small diameter branch removal wounds throughout the crown, most likely evidence of past deadwood removal, hence the lack of large diameter deadwood at this time.

- Only two years worth of needles left in crown i.e. this year's new growth and last year's needles, with several areas of discoloured and dead older foliage present. It would be reasonable to expect there to be three to five year's worth of needles in the crown of a healthy tree of this species. This indicates a degree of needle cast disease, most likely Red Band Needle Blight.
- Evidence of sub 150mm diameter branch breakage in the past in the form of a small number of shattered branch stubs.

Preliminary Conclusions

T119

- The vitality of this tree was impaired by a needle cast disease, most likely Red Band Needle Blight. This had reduced its vitality and made it less able to respond to new and/or increased mechanical loads by laying down additional reinforcing wood.
- There was a clear history of branch breakage over time that was ongoing. This loss of branches will have disrupted the aerodynamics of the crown and reduced the mass damping properties of the crown as a whole, leaving the remaining crown branches and the trunk exposed to increased mechanical loads. Given the low vitality of the tree, this has left the crown at greater risk of further branch breakage. Given the location of the tree overhanging the neighbouring property and close to the footpath, I consider the risk of harm posed to persons and property by this potential branch breakage to be high.

- Crown reduction pruning would reduce the wind lever arm length of the remaining branches, and reduce the risk of further branch breakage. However, this species of tree cannot regenerate new growth from old wood, so any crown reduction work must leave viable foliage across the margin of the crown if the tree is to survive. The needle cast disease in the crown means that all the live foliage is restricted to the distal ends of the branches, so any crown reduction pruning works could only remove a very small length of branch if live foliage is to be retained. Such a small reduction in length is unlikely to significantly reduce the risk of further branch breakage, and the removal of live foliage in this manner would further reduce the crown vitality. Therefore, it is my opinion that this tree should be removed on health and safety grounds as the risk of harm it poses outweighs its public visual amenity value.

T120

- Based on the very limited findings I could gather, I did not see any obvious health and safety reasons why this tree should be removed.
- The tree was clearly a dominant and potentially overbearing presence for the neighbouring domestic garden, and the occasional dropping of cones could result in the breakage of glass panes in a green house if such a structure was present under the crown. Therefore, the tree does pose a potential risk of harm and it is reasonable to anticipate a degree of conflict between the tree and the residents of the neighbouring property, but this must be considered against its high public visual amenity value.
- Normally, the owner of the neighbouring property can alleviate the nuisance caused by an overhanging tree such as this by exercising their common law right to cut the tree back as far as the boundary line if desired, and in the absence of the tree causing an actionable nuisance the Courts would expect the neighbour to take this action upon themselves without requiring the owner of the tree to take action. However, as the tree is protected by a Tree Preservation Order, this cutting back cannot be carried out without first obtaining permission to do so from the Local Planning Authority.

- One of the consequences of a Tree Preservation Order is to restrict the rights and expectations of the individual over a tree in consideration of the amenity benefits that tree provides to the wider public, and this balance between the rights and expectations of the individual and the wider public amenity benefits is to be struck by the Local Planning Authority when considering an application to work on or fell a tree.
- It can be argued that this situation arose firstly when planning permission was granted to build the neighbouring properties so close to this tree, and then again when the current residents purchased the properties in the full knowledge of the tree being present, but that would be of little assistance to the current situation, or comfort to the residents today as they will have a reasonable expectation to use and enjoy their property as they wish.

T124

- I observed no substantive reasons to justify the removal of this tree on health and safety grounds, however, the juxtaposition of this tree to the neighbouring property is the same as for T120, and the same issues around the balance between the rights and expectations of the individual and the wider public amenity benefits of the tree described above apply to this tree.

<u>Comments on the Supplied Tree Reports & Documents</u>

Tree Surveys Report SPH/SN/VTA-20/03.02 dated 17th March 2020.

- Section 4.1.4 - No reference provided to support the stated average lifespan of 80-90 years for a Monterey Pine. In my experience the lifespan of this species can be very variable so I suggest it would be helpful if a reference had been provided to support this quoted lifespan.

- Appendix 2 survey record and recommended works:
    - T119 – Recommends felling, with which I agree, however no record of the past and ongoing history of branch breakage has been made, or the significance of this branch breakage in crown dynamics and structural security terms. Also, no record of the reduced crown vitality was mentioned.
    - T120 – Recommends removal of deadwood over 25mm in diameter, which seems reasonable, but states a low useful life expectancy whilst providing little evidence to support such a low expectancy.
    - T124 – Recommends felling to form a monolith but does not justify this with any risk assessment or defects that would justify such an extreme course of action. I suggest this justification is necessary when recommending the felling of a protected tree that is of high public visual amenity value. States that the tree is of good physiological condition but also that the tree has a low useful life expectancy, and these two statements seem to be at odds with each other.
- Appendix 4 results of decay detecting drillings:
    - T119.
        - No significant internal decay detected at either ground level or at 1.5m above ground level.
    - T120.
        - No record of a drilling at ground level south. Why?
        - No record of a drilling at 1.5m above ground level east, south and west. Why?
        - No significant internal decay detected at either ground level or at 1.5m above ground level, but the drilling records seem incomplete.

- T124.
    - Contains two drilling records (68 and 69) for ground level south, one showing no decay, one showing decay and incipient decay i.e. completely different results. They cannot both be a true record of ground level south.
    - Drilling record 68 purports to show decay between 6 and 12cm, but it is far more likely that this is merely the bark layer and that the trunk wood starts at 12cm in.
    - Drilling record 69 indicates decay in the western trunk at 1.5m above ground level from 21cm in, leaving a residual wall around this decay of 21cm as measured from the outer bark, or 13cm as measured from the start of the trunk wood i.e. excluding the bark layer that seems to be 8cm thick according to the drilling record. The stated trunk diameter is 130cm, therefore this residual wall of 21cm equals 32% of the trunk radius. If the layer of bark is excluded, and it is assumed that this is an even 8cm around the whole trunk, the trunk wood radius is 57cm and the residual wall of 13cm equals 22.8% of the trunk wood radius. Referring to the work of Mattheck & Breloer (Mattheck, C., Breloer, H. (1994) *The Body Language of Trees: A Handbook for Failure Analysis.* In: Department of the Environment; Lonsdale, D. (Ed) Research for Amenity Trees. HMSO, England. fig63) it can be seen that a trunk only becomes significantly weakened when the residual wall is 30% or less of the trunk radius when the decay cavity is centrally located in the trunk. The residual wall in this case is less than 30% of the trunk radius when the bark layer is excluded, and greater than 30% when the bark layer is included. Therefore, the residual wall thickness is close to the limit stated by Mattheck & Breloer whichever way that is calculated. However, there is no other decay detected at this height in the trunk and I therefore consider this to be an acceptable residual wall in structural

stability terms given the quantity of sound wood in the rest of the trunk at this height.

- Drilling record 70 shows irregular readings in the southern trunk at 1.5m above ground level. This is the compression side of the trunk and the tree is responding to this compressive load by laying down additional reinforcing wood on this side, as evidenced by the bark growth I observed and noted above. This additional wood will be stronger and more dense than normal trunk wood, and I believe these irregular readings are merely the result of the drill passing through this stronger wood and this is not a defect.

Holmes table ref 18.2.20 airport letter.

- Seems to be a revised tree survey schedule following the breakage of a limb from T119.
- Now recommending major branch removal for T119 instead of the previously recommended felling. Inconsistent and unnecessary, T119 should still be felled in my opinion.
- Now recommends similar branch removal works for T120 and T124 on the assumption that they must be in a similar condition to T119 although the original Tree Surveys report and my findings confirm that these trees are in a significantly different condition to T119. I cannot understand the justification for the recommended works on T120 and T124 based on the Tree Surveys' survey data recorded in their report.

Holmes letter 24.3.20

- Seems to be written in response to the branch failure in T119.
- Again, recommends removal of T119, T120 and T124, but does not explain why T120 and T124 need to be felled. The letter refers specifically to safe useful life expectancy (SULE). This assessment system was devised by Jeremy Barrel many years ago, and he declared it withdrawn from use several years ago, therefore SULE is not a current system of life expectancy assessment.

Table 24.3.20 Holmes.

- Seems to be the tree survey schedule produced for the application to carry out works to protected trees. Confirms the works detailed in 'Holmes letter 24.3.20' but still provides no solid justification to fell T120 and T124.

Tree Surveys Letter re Marlhill Copse Redacted.

- Confirms timeline of events and records meeting on site with tree officer. Again, describes T119, T120 and T124 as being in a similar condition although the original Tree Surveys report and my findings confirm that these trees are in significantly different conditions.

Gary Claydon-Bone (Tree Officer) Report.

- Paragraph 1 – States that the application accords with good forestry practice. This may well be the case for T119, T120 and T124 as the trees are non-native and their removal would allow indigenous trees to grow in their place, and the trees are of little timber value due to their form, but this does not take the public amenity value of the trees into account.
- Paragraphs 21 and 22 - Records the application to fell T119, T120 and T124 being referred to the Forestry Commission for a Felling Licence application. The justification for these fellings was on the grounds of health and safety and therefore exempt from the requirement for a Felling Licence. I assume this is why the Forestry Commission returned the application.
- Paragraph 28 – Seems to refer to the tree surgery works on T119 that were taking place on the day of my visit.
- Paragraphs 44 to 57 – Considers at length whether the removal of the trees can be considered good forestry practice. On these terms the removal of all three Monterey Pines can be justified, irrespective of the risk they pose to persons and property.
- Paragraph 61 – Very perceptive comment, the justification to fell is not made on the basis of decay, but on an assumption that the trees will shed branches simply because of their age.

- Paragraph 71 – The applicant seeks to down play the public amenity value of the trees by stating they can only be seen from a few public vantage points, but the tree officer goes to some length to correct this in subsequent paragraphs and confirms the public amenity value of the trees. However, he does agree at paragraph 80 that the trees form part of a greater woodland and are not themselves a defining element of the greater woodland, which is a valid point.

Final Summation.

- The reports and recommendations made by Tree Surveys in respect of T119, T120 and T124 have changed over time and these inconsistencies raise doubts in my mind as to the validity of all the recommendations. I concur that T119 should be felled for reasons of health and safety, but I do not agree that the Tree Surveys reports contain adequate justification for the removal of the high public amenity value trees T120 and T124 on health and safety grounds.
- The Tree Officer has thoroughly considered the application and whilst he seems broadly sympathetic to the health and safety justification made in the Tree Surveys reports for the felling of T120 and T124, he does not seem to be completely convinced. However, he has considered whether the felling of these trees would accord with good forestry practice when considering the woodland as a whole, and concluded that it would. In my opinion this is a valid conclusion and could form a legitimate reason to grant permission to fell the trees.

- I suggest the decision whether to approve or refuse the application to fell T120 and T124 hinges on whether the members consider the loss of a significant public visual amenity in the form of two highly visible skyline trees is adequately mitigated by the implementation of good forestry practice and the cessation of their conflict with neighbouring residents. If they believe it is, then they should grant permission to fell T120 and T124 subject to a condition requiring the drawing up, approval, and implementation of a whole woodland management plan that will sustain the character and viability of the woodland as a whole. However, if the members believe these trees are of very high public amenity value, which I believe they are, they will need consider thoroughly whether the implementation of good forestry practice and the cessation of their conflict with neighbouring residents is sufficient justification for losing such a great public amenity asset.

March 2020 - Marlhill Copse
TPO application - Tree Positions