

The Hillyfield, Harbourneford Planning Inquiry

Appeals

3140928 - Prior Notification Decision 1 (PND1)

3146596 - Enforcement Notice 1 (EN1)

3146597 - Enforcement Notice 2 (EN2)

3168180 - Prior Notification Decision 2 (PND2)

3191100 - Refusal of Planning Permission 1 (RPP1)

Proof of Evidence

of

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The Hillyfield, Harbourneford Planning Inquiry

PROOF OF EVIDENCE

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1. PRELIMINARY REMARKS

1.1. I was originally contacted by email by Mr D King-Smith in April 2015 who asked if I would be prepared to help him with a planning application for two buildings at The Hillyfield that he required for managing his woods on an environmentally sustainable basis. After I had studied a copy of the Woodland Management Plan approved of by Forestry Commission England, outline drawings of the two buildings proposed at that time, obtained an explanation of their purpose, and examined estimates of the quantity of timber the woods could produce, that Mr King-Smith emailed me, I agreed to help him. I set out my thoughts on why I thought the two buildings were necessary for managing the woods in a way that would allow him to achieve his vision in a letter to Mr King-Smith on 24th April 2015.

1.2. On 19th August 2015 Mr King-Smith emailed me again to tell me that there was still an issue with the Dartmoor National Park Authority (DNPA) over his application to construct the two new buildings and he asked if I would be prepared to comment on the DNPA Case Officer's report which he emailed to me to look at. I subsequently agreed to send my thoughts on it to Mr King-Smith which I did in a letter dated 20th August 2015.

1.3. On 13th April 2016 Mr King-Smith let me know that he was likely to lodge an appeal, so I arranged to visit The Hillyfield in the company of Mr D King-Smith on 20th August 2016. I arrived at approximately 11.0 am and left at about 3 pm after walking round the property and inspecting the woods and the existing buildings accompanied by Mr King-Smith. I had the opportunity during my visit to look at the Woodland Management Plan again and to ask Mr King-Smith about his vision for the property, what forestry management activities he had undertaken and what future activities he planned to undertake to achieve his Vision.

1.4. My comments that follow are based on the technical information Mr King-Smith has sent me, my discussions with him about the way he has conducted the management of his wood and my visit to the wood on 20th August 2016. My comments also draw on the knowledge I have obtained from my forestry education and training, and my work experience.

1.5. I am a Chartered Forester and a Fellow of the Institute of Chartered Foresters and I also act as an examiner for the Institute. I have an Honours degree in forestry from Aberdeen University and a Bachelor of Letters degree in forest economics from Oxford University and I also have a Certified Diploma in Accounting & Finance from the Chartered Institute of Certified Accountants.

1.6. I worked overseas for 6 years firstly for the Solomon Islands' Government as an Assistant Conservator of Forests before working at the Forest Research Institute in New Zealand as a Forest Economist for 4 years. During this time, and subsequently when back in the UK, I have undertaken a number of short term consultancy evaluations of overseas aid projects connected with silviculture, wood utilisation, the involvement of communities in establishing and managing woods, and conservation in different parts of the world for different aid agencies including FAO, UNDP and the UK Department for Overseas Development.

1.7. I have worked in the UK since 1979 when I joined the Economic Forestry Group, which was then the largest forest management company in the UK, as a forest economist advising clients, particularly pension funds and life assurance companies on investing in forestry and on the subsequent management of their forests. After 10 years I became a partner in John Clegg & Co, which is a firm of forestry surveyors and valuers, where I remained for 12 years. There I was involved in a wide range of forestry connected activities that included giving investment advice, valuations and sales as well as forest sector development consultancy projects. Since 2002 I have owned and run John Clegg Consulting Ltd which has focused on forestry consultancy work covering a wide range of sector related activities.

1.8. My work and my personal interest in woods and trees has meant that I have visited innumerable woods and forests in the UK and looked at and discussed their silviculture, talked to

a very wide range of owners, woodland managers, contractors, crafts people and managers of companies that process wood all along the wood chain.

1.9. In 2011 I completed a consultancy project in the South West of England for the Woodland Renaissance Partnership and the Forestry Commission. The project involved identifying opportunities for adding value to South West England home grown timber, assessing the potential for new technologies and providing an analysis of the business case for significant new investment in primary or secondary processing capacity in the South West of England. This meant that I had to get an in-depth knowledge and understanding of the forest economy of South West England which I did through a series of personal interviews and background research. My subsequent enquiries have indicated that there have inevitably been some changes of detail in the forest economy of the South West of England e.g. timber prices and costs, but none have been of sufficient size to radically alter it.

2. POLICY CONTEXT

2.1. In understanding what is the appropriate way to manage the woods at The Hillyfield I felt I needed an understanding of the policy context. My understanding of it has been obtained from a variety of statements and publications of which the most important ones for me have been:

2.2. The UK government's Forestry & Woodland Policy Statement issued by Defra in January 2013 (p11) states that 'in England around 47% of woodlands, most in private sector ownership, remain unmanaged or under-managed. It goes on to state that this lack of management can and should be addressed if the economic, social and environmental potential that England's woodlands have to offer is to be realised'. It appears to me that the UK Government is therefore very supportive of bringing small woods, such as Mr King-Smith's, into management, and in developing markets for woodland produce.

2.3. The UK Government's Forestry & Woodland Policy Statement 2013 (p17) also says that '*a true and sustainable woodland culture needs to be built from the ground up and must be based on the needs, interests and enthusiasm of local people*'. It goes on to state that '*it is important for landowners and businesses to be aware of and understand the interests of their local communities and be willing to work with them wherever possible to their mutual benefit. We want as many people as possible to be able to access green space, including woodlands, for exercise, leisure and recreational purposes*'. I think Mr King-Smith's activities with the community, such as the Woodland Olympics and the Easter Egg Hunt events he organised seem to be entirely aligned with the Government's objectives.

2.4. In line with the UK Government's Statement, Forestry Commission England sees that one of the ways of bringing small and undermanaged woods back into management is through the development of a wood fuel sector which it is encouraging through active promotion and the provision of equipment grants. (A Woodfuel Strategy for England, 2006).

2.5. The report called 'Valuing England's National Parks by Cumulus Consultants Ltd in May 2013 states on p40 that 'NPAs have a longstanding and close working relationship with farmers and foresters in the National Parks, both as authorities and landowners (in some areas)'. NPAs influences and activities specifically include the following:

- 'Woodland product initiatives, designed to support the production, processing and marketing of high quality timber, coppice and other woodland products. This includes supply chain and quality assurance/certification activities.
- Wood fuel initiatives, designed to support the development of the wood fuel sector in National Parks. This includes business and marketing support, technical advice, and grants for equipment and boilers'.

The report did not identify that the DNPA's relationship was any different than other National Parks in England.

2.6. The National Parks Circular 2010 has a vision for 2030 (page 5) and the proposals at The Hillyfield seem entirely aligned with the four elements of that vision. The Circular also has a set of Priority Outcomes for 2010 to 2015 and suggested actions. These are quoted in full below with their paragraph numbers because they encapsulate and describe many of the activities that Mr King-Smith has been organising and which the DNPA seem to consider to be a change of land use and therefore subject to planning control.

'Promoting opportunities for the understanding and enjoyment of the special qualities of the Parks by the public

23. Large numbers of people visit and learn about the Parks every year, drawn by their landscapes, the chance to escape day to day pressures and above all, to experience the sense of freedom, peace, adventure and enrichment which generations have enjoyed since the Parks were first established. No two Parks are the same and the Government looks to individual Authorities to identify the special qualities of their Park, including those associated with their cultural heritage, wide open spaces, coastlines, the sense of relative wildness and tranquillity, and the dark night skies that Parks offer. Authorities should produce and promote educational and recreational strategies which are best suited to these special qualities, to enable residents and visitors to learn about what makes a Park special, to encourage wider action on sustainable living and make a personal connection.

24. Authorities should continue, and also encourage others, to develop innovative information and education programmes which help people to understand and enjoy what the Parks have to offer. They should continue to work with those in the education and voluntary sectors and to utilise new methods of communication to reach wider audiences in ways that best meet their needs.

25. The popularity of the Parks is a testament to the benefits they provide to the nation. However, some groups visit Parks less often than others such as ethnic minorities, young people, disadvantaged groups and disabled people. Authorities should recognise their responsibility to promote understanding and enjoyment to all sectors of society. A proactive approach is required to overcome the barriers to visiting and experiencing the Parks that may be encountered by under-represented groups. Authorities should continue to strengthen links with urban populations, taking steps to attract people from all walks of life.

27. Parks are attractive locations for large-scale community, charitable or other events and festivals such as organised charity walks, cycling events, cultural and musical events and fairs. Events should be encouraged which fully engage local communities and visitors, showcase 'greener living', minimise harm to the environment and help to interpret and encourage access to Parks. Such events can be significantly beneficial to achieving Park purposes and deliver economic and social benefits to local communities. Events with the potential to harm the special qualities of a Park, such as caravan and vehicle rallies and large music festivals, will need to be controlled. Authorities should build on their existing experience of working with event organisers to ensure the events programme overall contributes to the sustainable development of Parks and does not harm these special qualities. Parks offer community cohesion and sharing between rural and urban communities.

Improving public understanding of the natural environment and the benefits of outdoor recreation (Page 17)

61. The Authorities should make the most of visitors they receive to increase understanding of the natural environment, promote healthy outdoor recreation and inspire lifestyle choices that

support a diverse and healthy natural environment. In particular, children have less contact with nature now than at any time in the past. Contact with nature improves children's concentration and self discipline, and playing in a natural environment improves their social, mental and physical development. People who spend time in the natural environment as a child are more likely to continue visiting it as an adult and more likely to value these places and the many benefits they offer.

62. The Government (Department for Children Schools and Families) sponsored Learning Outside the Classroom (LOtC) initiative promotes the idea that every young person should experience the world beyond the classroom as an essential part of learning and personal development, whatever their age, ability or circumstances. The Parks contain a huge range of landscapes, habitats, history and rural communities, providing excellent opportunities for learning, recreation and exercise in beautiful natural surroundings.

63. Authorities should promote opportunities for children and young people to experience the natural environment in the Parks and seek to inspire a lifelong commitment to enjoying, understanding and caring for the natural environment. The Authorities should also work with partners to achieve a deep understanding of what people want from the natural environment and what will motivate lifelong behaviour change and should use this to inform their work in this area.'

2.7. The Dartmoor National Park Authority's own Local Development Framework Core Strategy Development Plan Document states that it wants to support the:

- Economy: To promote sustainable economic growth, particularly of key business sectors, and to utilise employment, land and premises effectively and efficiently.
- Core Strategic Aim – Employment: To assist in the provision of local employment and business opportunities, particularly in Local Centres, and in ways that are beneficial to the National Park and the Community.
- Core Strategic Aim – Farming: To assist in sustaining viable farming and *forestry* systems (italics added) as a vital element in the local economy particularly in ways that further the purposes of the National Park designation.

2.8. In the Dartmoor National Park Plan under the heading of 'Future of farming and forestry - Key areas' it specifically states:

'Many valley woodlands are in steep, difficult to work locations, which has led to some neglect. There is an ongoing challenge to bring the more accessible woodlands into positive management, particularly smaller woodlands that are not economically viable to manage. The increased interest in woodfuel and biomass for heating, milling timber and other woodland products means that this could change in future, particularly through co-operative working. Opportunities to bring neglected woodlands back into management will also support the woodland economy and create jobs linking to the [Prosperous Dartmoor](#) priority. There is also interest in increasing community involvement in woodlands and orchards which will contribute to objectives under [Community Focus](#).'

2.9. Based on my research I think Mr King-Smith's activities seem to be very well aligned with how the Government would like National Parks to develop, with the Government's National Forestry Policy and with what the Dartmoor National Park Authority wants to see happen to woodlands in delivering the Dartmoor National Park Management Plan.

3. OPTIONS FOR MANAGING THE WOODS AT THE HILLYFIELD

3.1. People buy or own woods for a variety of reasons. The total area of woodlands at The

Hillyfield is estimated to be approximately 11.8 ha and Mr King-Smith has always said from the time of my first contact with him that he wanted to manage the woods at The Hillyfield with the aim of retaining the remnant features of the ancient semi natural woodlands and replacing the coniferous or exotic species with native species. Having visited the site, I think these woods will benefit from management. His woodland management aims are entirely appropriate given the historic nature of part of the woodlands and the landscape of the area and I therefore fully support them.

3.2. To achieve his aims Mr King-Smith has a number of different woodland management arrangement options potentially open to him, but each has a different outcome financially for Mr King-Smith, environmentally for the woods and socially as far as wider community is concerned.

Woodland Management Arrangements

Employing External Managers and Contractors

3.3. Many woodland owners, particularly those that own large commercial conifer woods or forests employ professional managers who manage the woods on the owner's behalf and bring in contractors to undertake any work they consider necessary. Managers and contractors in most cases do not live locally and so come and go using their own vehicles.

3.4. The costs will vary with the type of woodland, its condition, the company and the amount of management required, but annual costs of professional management for a small woodland in reasonable condition on flat ground and good access can vary from £150 to £500 per year plus VAT depending on the amount of management time involved and the size of the company providing the service. The costs at The Hillyfield would be much more because of, for example, the species diversity of the woods, the steep slopes, little suitable access, invasive species, the river and also because of dealing with the consequences of the disease in the Larch trees.

3.5. Where a manager identifies a need for a particular routine operation in a small wood in good condition on flat ground with good access, the labour cost may be of the order of £150 per day plus materials depending on the operation. If on average two woodland management operations are needed per year, the annual operational costs could be about £300 per year plus any materials such as fencing or roading materials. In some years there may be no operations needed, but in others there may be a number of them required.

3.6. Professional management fees and the operational costs can, on average, range from about £500 to £1,000 per year excluding VAT and insurance costs for small woods in good condition on flat ground and good access. The costs at The Hillyfield have been and can be expected to be considerably more than the 'model' small wood on which the above indicative costs have been based.

3.7. Even these costs for a 'model' wood used as an example above will result in a total cost of £10,000 to £20,000 over a 20-year period ignoring the accumulated foregone interest and VAT. At The Hillyfield Mr King-Smith would have been faced with significantly higher costs if he had used an external manager and contractors because of the amount of work that has been required, and will be needed in the foreseeable future, to deliver the Forest Plan approved by Forestry Commission England.

3.8. The prospect of significant timber income in the immediate future at The Hillyfield just from felling trees is limited due to disease that has resulted in Mr King-Smith having to fell a significant area of trees shortly after buying the wood. Fortunately for many small woodland owners they are not faced with this situation. Some income can be generated from their woods from intermittent timber sales, but the intervals tend to be very long, unless the property is very large, and in many small woods the volumes will be small, the commercial quality of the trees is generally not very good due to lack of management in the past, so the net income generated is

very small and does not off-set the management costs they have incurred.

3.9. While I have no knowledge of Mr King-Smith's personal circumstances, I see no reason that he, as one of many small woodland owners in the UK, should be required to use external managers and contractors just to bring a small wood into active management again rather than using one of the other options open to them. The prospect of incurring such high costs results in many small woodland owners leaving their woods unmanaged.

Woodland Management Organised by Owner

3.10. Some woodland owners wish to manage their own woods, particularly if they are relatively small. Mr King-Smith wants to manage his own woods and he does this with professional forestry advice from Mr Rupert Lane who was a Senior Woodland Officer with the DNPA before he retired.

3.11. Mr King-Smith and his agent Mr Rupert Lane prepared a 31 page 10-year Woodland Management Plan that was approved on 1st April 2014 by Forestry Commission England. I think the Woodland Management Plan is very comprehensive, well prepared and presented. It has been assessed against the UK Forestry Standard (UKFS) which is the reference standard for sustainable forest management in the UK. The quality of the Plan can also be judged by the fact that it has been approved by Forestry Commission England which is the government department responsible for protecting, expanding and promoting the sustainable management of woodlands and increasing their value to society and the environment.

3.12. I have found Mr King-Smith very knowledgeable about his woods and enthusiastic about managing them. As a professional forester I am therefore totally supportive of Mr King-Smith and the arrangements he has in place for managing The Hillyfield woods himself with the help of his Agent, Mr Rupert Lane, and I feel confident that the management arrangements in place will be able to deliver the Plan approved by Forestry Commission England.

4. OPTIONS FOR UNDERTAKING SILVICULTURAL WORK AT THE HILLYFIELD

4.1. One option for Mr King-Smith when he needs some work carried out in his woods is to employ someone to do it for him. If he asked a commercial forestry management company to undertake the work, they would place a mark-up on what they were paying the person to do the work. The amount would vary according to whether the person was a direct employee of the management company or a contractor working for them.

4.2. If Mr King-Smith directly employed a person to do the work, the costs are likely to be lower, as there would be no company cost mark-up, but Mr King-Smith may need to spend some time explaining what needs to be done and supervising the work. The person doing the work would need to be paid at least the minimum wage which suggests the cost might be somewhere between £62.64 and £100 per day if a pension contribution, insurance and travel cost are taken into account. If the person has some experience and training, the cost could be even higher for Mr King-Smith.

4.3. Another option is for Mr King-Smith to undertake the work himself and, if he does that, there are obvious cost savings for him. If he asks volunteers to help him, then I see no technical forestry reason why they can't. By the very nature of the way these activities are carried out, and because of the owner's direct involvement, they tend to be done more slowly and in a more environmentally sympathetic way. If volunteers help Mr King-Smith with any work, this has the added benefit of giving them the opportunity to learn about nature and woodland management and to work and exercise in the open air in the company of others. It is a great learning opportunity and a way to build up knowledge and experience and it has also been found elsewhere that for some people this type of work can help their mental well-being as well. This

appears closely aligned to what the DNPA is trying to achieve by its own 'Moor than meets the eye project'. (<http://www.moorthanmeetstheeye.org>).

4.4. As a professional forester, provided the necessary Health & Safety arrangements are in place, I am unable to identify any technical reason that requires Mr King-Smith to use one of the above three options in preference to one of the others. As Mr King-Smith wants to do as much work in the woods himself with the help of volunteers, I am entirely supportive of him doing this as the outcome of the work should be exactly the same. Working with volunteers and organising some events to thank them for the work they do, seems to be entirely in line with the policies outlined in Section 2.

5. OPTIONS FOR HARVESTING, MARKETING & USING WOODLAND PRODUCE

5.1. Mr King-Smith's original plans for the management of his woods have been seriously affected by the presence of *Phytophthora ramorum* that has killed or affected an area of Larch trees. He therefore had to fell all the infected trees which was totally unexpected. This has been accounted for in the Woodland Management Plan and should result in an overall improvement in the woodland biodiversity and resilience of the woods.

5.2. One consequence of having to fell the Larch trees is that there are a number of felled Larch logs already at The Hillyfield and another consequence is that the estimated volume of standing timber for harvesting in the next twenty years is smaller than it otherwise might be even for a small wood.

5.3. Estimates of the volume of timber that will need to be harvested over the next twenty years have been prepared by Mr Rupert Lane and are given in table 5.1. Additional volumes will be available in the future as more of the areas recently planted, where diseased Larch trees have been felled, become well established and come into production.

Table 5.1 Estimated Volume of Standing Timber for Harvesting at The Hillyfield over the next 20 Years

	Period in Years			
	0-5	6-10	11-15	16-20
Conifers	0	153 cu m	16 cu m	30 cu m
Broadleaves	50 cu m	65 cu m	69 cu m	65 cu m

5.4. The site is difficult to harvest due to steep slopes, but the infrastructure is good for a small woodland as a result of the investment and hard work undertaken by Mr King-Smith since he purchased The Hillyfield.

5.5. Mr King-Smith has a number of options as to how this standing timber can be harvested.

Use of External Contractors

5.6. One option for Mr King-Smith is for him to employ a woodland management company or agent to sell any timber he needs to sell. Professional managers normally focus on selling standing trees by tender. In selecting the successful tenderer, a buyer's location is not of significance, unless the owner makes it a condition of the sale, and the successful buyer is left to bring in their own contractors who often travel long distances from site to site, or stay in a caravan on site for the duration of a job before moving to the next site.

5.7. These operations normally involve the use of a harvester and a forwarder as the photos

below show; each machine can cost about £250,000 or more depending on the type of machine.



Harvester



Forwarder

5.8. Second hand machines are cheaper. A harvester can produce about 100 to 200 tonnes of logs per day and a forwarder can move about 8 – 16 tonnes per load. There is an additional cost of moving these machines to and from a site which can be of the order of £500 to £1,000 one way for each piece of equipment and depending on the distance of travel between sites. Internal access to a harvesting site must be good. External access is not always physically easy because of the size and weight of the equipment and some road damage can occur on narrow roads in country areas. It would also not have been possible to bring in this type of equipment to The Hillyfield before the new access was created in 2016 because the gateways were not wide enough, and the stone bridge was too small and probably not strong enough to bear the weight of these types of machines.

5.9. Given the cost and productivity of these machines, it normally makes no financial sense to use these machines to harvest and extract quantities of much less than 100 - 500 tonnes in any one operation. Roundwood buyers and contractors are focused on larger timber sales unless they think they can buy the roundwood exceptionally cheaply, or there are some other special circumstances.

5.10. The sale of timber tends to get delayed as long as possible to increase the quantity of timber in a single sale with the aim of making it more commercially attractive.

5.11. There are economies of scale for a purchaser in picking up and transporting harvested roundwood from a woodland site to the place where it is going to be used. If it is being done using a flatbed artic it can carry a load of about 29 tonnes and can have a gross weight of 44 tonne and a total length of 16.5 metres. If it is being done with an 8 wheeler, it requires a payload of about 18 tonnes and has a max gross weight of 32 tonnes and has an overall maximum length of 12.5 metres. Good access is obviously required and loads of less than 18 or 29 tonnes depending on vehicle type becomes less economic and as a result can cost owners more, and as a consequence they receive less income.

5.12. Felling hardwood trees which individually are often larger than conifer trees is often carried out using chainsaws and wheeled or tracked forwarders or winches in larger commercial operations. There can be a premium for keeping the length of the hardwood logs as long as possible if the quality is good. Some sites do not have the access to get trucks onto a site to take the longer length hardwood logs.

5.13. Depending on the location of a wood and its access, there can be some local buyers for standing or felled timber. Where this is the case, the trees still have to be felled, extracted and transported to the end user and in most cases, this will still involve machines, although they may be slightly smaller than the forwarder shown in the picture above. The smaller machines may

not be able to physically manage where slopes are steep and there may be Health and Safety issues for the driver and other people working in the vicinity of the machine.

5.14. Given the small volumes of standing timber to be harvested in the woods at The Hillyfield over the next 20 years, using an external manager or agent to market the timber and then bring in external harvesting contractors would not be viable, and even if it was, it would lead to potentially significant ecological disturbance of the site from the use of large machines.

5.15. Ecological disturbance of the site is an important consideration at The Hillyfield because mechanised operations have the potential to damage the rides and internal roads, destroy the diversity and structure of the understorey and damage the structure of the soils in the wood. As the woods are on steep slopes, any damage by the use of machines would potentially result in significant run-off and could therefore potentially affect the water quality of the stream.

Standing Sale Organised by Mr King-Smith

5.16. This is another option as Mr King-Smith could control the sale and could therefore seek out the local buyers who he knew might be interested in felling and extracting the small quantity of timber for sale. Prices may be relatively low because the volumes will be small, the felling costs higher because of the small volumes and steep slopes, and the buyer may be aware that competition is likely to be limited.

5.17. The costs would be less, but the trees still have to be felled and extracted and transported to the end user and in most cases this will still involve machines, although they may be slightly smaller, but damage to the site could well occur because of the contractor's wish to complete the work as quickly as possible. Machines and a truck would still have to be brought to the site along country roads and this would add to the costs of the operation.

Roadside Sale of Logs Organised by Mr King-Smith

5.18. Another option would be for Mr King-Smith to fell the trees himself, or with suitably trained volunteers, and to then cut the logs to a suitable length and extract them to roadside. An 8 wheeler lorry is still likely to be needed to transport the logs to the buyer.

5.19. Prices may be relatively low using this method as well, because the volumes will be small and the buyer may be aware that competition is likely to be limited.

5.20. Extraction might be done by winch and is likely to be done in a way that minimises damage to the ecology of the wood. This is potentially likely to be a better way of selling the timber

Converting Logs at The Hillyfield

5.21. The fourth option for Mr King-Smith is to fell, extract logs from the woods and convert them into primary products at The Hillyfield. He has been doing this with the Larch trees that had to be felled due to P. ramorum at The Hillyfield, with the help of volunteers. Where these volunteers have different woodland related crafts skills, it allows a wider range of high quality products to be made, and this will also have the added benefit that other volunteers will have the opportunity to learn and develop their craft skills from those who are practising them at The Hillyfield.

5.22. As a forest economist I think it makes very good financial sense for Mr King-Smith to try and capture as much value-added as possible on all the logs that are felled at The Hillyfield as he cannot operate at scale in a small wood. I therefore think this is the only way for Mr King-Smith to maximise his income from the sale of timber at The Hillyfield. It has the extra advantage in not requiring large lorries coming and going to the site as the trees will have already been converted on site. Should a situation arise where some logs need to be sold, this method still allows that possibility.

6. ADDING VALUE TO LOGS & WOODLAND PRODUCTS

6.1. The profitability of a wood depends to a large degree on what woodland products are marketed and how successfully they are marketed. Most owners of large woods simply obtain the market price for their standing trees or roadside logs and all the value is added to them further down the supply chain by other people or companies that can be located geographically a long distance from the wood itself. As a result this way of marketing and harvesting trees only results in a very small amount of money, if any, entering the local economy, and no jobs or opportunities are created for people living locally.

6.2. Much of the commercial forest management today is focused on supplying logs to the bulk markets such as sawmills, panelboard and biomass markets on contracts of various types. The capital investment in these mills and manufacturing plants requires them to have a continuous supply of logs. On average about 30% to 40% of the cost of wood delivered into these mills is made up of transport costs.

6.3. Good marketing of woodland products often requires finding niche local markets for all types of woodland produce – not just logs. This requires hard work, innovative thinking and personal contacts; none of which are readily available in most parts of the forest sector due to a variety of commercial pressures, with few people resident in an area for a long time to build up local market knowledge. In the past a few large estates with resident foresters were notable exceptions and they often had their own estate sawmills and had good contacts with local people.

6.4. Mr King-Smith is committed to managing his woods on a sustainable basis. He is compensating for the small quantity of logs The Hillyfield has, and will produce, by finding as many woodland products as possible to sell, and to add as much value to the whole tree as possible, while at the same time allowing other people to learn and enjoy the pleasures of being in a wood and observing and understanding nature.

6.5. I also think Mr King-Smith has adopted exactly the right approach from the point of view of forest economics based on my own telephone and web-based research into local markets and prices in late 2016 and early 2017 when this Inquiry was originally scheduled to be held. The price information I obtained is given in Annex 1. Three local forestry consultants independently very kindly provided me with information on the prices they were obtaining for their clients on the basis of strict commercial anonymity. They are identified as Forestry Consultants 1, 2 and 3.

6.6. This price information clearly shows how value can be added by focusing on different markets and by converting a log to meet the dimensions and requirements of each market. Very crudely, and depending on the species, an owner may only get £10 to £15 per cubic metre for a standing tree, but the same material can be moved up the value chain by further processing with the result that the converted products can fetch up to £500 to £1,000 per cubic metre in certain markets.

6.7. Mr King-Smith wants to restore the ancient woods in a sympathetic ecological and environmental way which takes time and requires more labour intensive operations. The approach that Mr King-Smith is taking at The Hillyfield, which is to market as much of each tree and log he has, and to add as much value as he can, is therefore an entirely appropriate one.

6.8. Mr King-Smith has shown me the information that he and his Agent Mr Rupert Lane have on local markets for woodland products which closely matches the information I collected independently and, as it is more detailed and up to date, I am including some of it here as it more clearly demonstrates the value-adding processing and marketing opportunities that Mr King-Smith has identified and is pursuing at The Hillyfield.

Table 6.1 Local Value-Adding Processing & Marketing Opportunities for Conifers Trees

Products			Value £/m ³
Converted sawlogs:			
	Planks		459.00
	Cladding		423.00
Round wood			
	Playground timber supply		45 - 60
	Fencing posts		95.00
	Fencing - strainers		140.00
	Firewood:		45.00
		Rocketlogs	850.00
		Split delivered firewood	110.00

6.9. Overall there are more processing and marketing opportunities for broadleaved trees as the information in table 6.2 shows.

Table 6.2 Local Value-Adding Processing & Marketing Opportunities for Broadleaved Trees

Products			Value £/ cu m
High value planking:			
	Specialist timber (through and through)		882.00
	Worktops		1286.00
	Beams & lintels		675.00
	Firewood		75.00
Heritage Craft products e.g. Broom & tool handles, chairs, stools dibbers, carving, rolling pins boot holders etc		upwards of	2000.00
	Charcoal		1620.00
	Biochar		1080.00
	Artists sticks	upwards of	6000.00
Products cut and sold as item rather than cubic metre			
	Living coffins	80 rods required at	£5-7.50 each
	Hazel rods		£1 each
	Willow whips		0.25p each
	Willow rods		0.25p each
	Willow weaving rods		0.50p each

6.10. Other value adding opportunities that Mr King-Smith is pursuing include making a variety of other products from tool handles to chair legs created from suitable material most often left to rot in the wood. Making such products may also allow more recently established hardwoods to

be thinned earlier than when grown on a larger scale in plantations.

6.11. Specialist firewood called 'Rocketlogs', a product trademarked to The Hillyfield, have more recently been developed to add more value, but prices are not yet well established given the early days in production and marketing. From one free-press advertisement, 24 units sold in 2 weeks prior to Christmas 2016, with enquiries from a range of outdoor experience companies. Rocket logs generate £850/m³ when sold direct to customers.

6.12. Locally sourced sustainably produced wood products are apparently sought after in the immediate locality with many craftsman using local products in preference to imported timber where available in similar condition and quality. This interest in local sourcing is also apparent nationally with food grown in a traditional organic way.

6.13. Mr King-Smith is adding as much value as possible to every part of each tree at The Hillyfield and he and his Agent are constantly looking for new higher value local markets for all types of woodland products. Actively managing The Hillyfield would not be financially viable if Mr King-Smith did not adopt this approach.

6.14. Based on my knowledge and experience working in the forest sector, this is exactly the right strategy to adopt and his determination and enthusiasm in taking this approach is highly commendable and should make the management of the woods at The Hillyfield financially viable. Many other small woodland owners do not have his interest, time or dedication to do this and as a consequence many small woods are left unmanaged elsewhere in England.

6.15. Mr King-Smith's focus is on adding value and supplying local markets but it also potentially results in less carbon fuel being used and also less pressure on public roads and so brings additional environmental benefits.

7. FINANCIAL VIABILITY OF THE HILLYFIELD ENTERPRISE

7.1. I am a qualified a Chartered Forester and not a Chartered Accountant and therefore I am not in a position to assess the past or future financial viability of Mr King-Smith's Hillyfield activities, but I can make a number of observations as a forest economist based on what I have seen, and what Mr King-Smith has told me.

Annual Operational Costs & Sales

7.2. The forestry operational activities required to deliver the Forest Management Plan successfully are significant. As the woods at The Hillyfield only extend to 11.8 ha there are obvious limits to the income that can be generated from them out of which all costs have to be met.

7.3. The ways the operational activities might be carried out in the woods by Mr King-Smith were identified in section 4. Mr King-Smith has decided that he wants and needs to undertake as many of the restoration and management operations required in the woods as possible with the help of volunteers, but with the aim of employing more help in the future. If he was not permitted to receive help from these people for some reason, he would have to bring in outside help as he alone couldn't keep up with the work that is needed, and this would be a significant extra cost for his enterprise which might not be affordable. This is the reason that many other owners of small woods have left them unmanaged.

7.4. The financial viability of the Hillyfield enterprise, and the future management of the woodlands also depend on generating as much income as possible. Continuing to add the maximum value to every tree, and marketing all woodland products is critical to the successful future financial viability of the enterprise at The Hillyfield. Adding value to all parts of a tree is time consuming. Mr King-Smith has decided that he will do the work himself and he has also found a number of other people who are interested in helping him. This approach to woodland

management results in the woods being managed in a traditional way and as a consequence it respects the ecology of the wood and the wider environment. It also maintains the wood's links with the historic landscape of the area and therefore the products that are produced appeal to the increasing number of people who are looking for that connection and want such links to continue. As a consequence these people are prepared to pay a little bit more for the products that are produced.

7.5. If the value-adding opportunities identified in section 6 were not possible for some reason, the income that could be generated would be minimal and would not in any way meet the costs of managing the woods at The Hillyfield.

7.6. Recognising the limitations to the amount of income that can be raised from the woodlands, Mr King-Smith has sought to raise additional income in other ways such as by holding one-off events for the public at The Hillyfield and providing a site to run training courses including one funded by the Rural Development Programme for England. These courses have included basket making workshops using local willow, and horse-logging experimental days for a local horse-logger.

7.7. These types of initiatives provide wonderful education and training opportunities for people who are interested in woods, and in woodland culture and ecology and are keen to learn about them.

7.8. Central and key to the success of the enterprise at The Hillyfield is the support that Mr King-Smith receives from volunteers who help with woodland management operations and adding value to all types of produce from the woods at The Hillyfield for the reasons explained in earlier sections. More difficult to quantify in financial terms are the benefits that volunteers themselves gain through becoming part of a community of people with like-minded interest in sustainably managing the woods at The Hillyfield. I understand that Mr King-Smith has received letters from a number of these people saying how much they have benefitted from the experience.

7.9. Mr King-Smith has told me that over the last three years the income from his enterprise has exceeded his costs. If the volunteers were not permitted to help Mr King-Smith with woodland management, adding value activities and the removal of the introduced species, the return of a native woodland would not occur and the woodland could return to being unmanaged.

Longer Term Viability

7.10. The quantities of timber at The Hillyfield would be considered by most foresters used to commercial forestry operations to be insignificant. That is because they have little experience of labour intensive, value-adding, craft orientated activities involving the utilisation of whole trees.

7.11. When I visited The Hillyfield I saw a number of logs from trees that had been felled and were waiting to be processed. These logs are being protected as well as possible and as Larch is a durable species the logs can survive for 15 – 25 years. Their useable volume is estimated by Mr King-Smith to be about 1,300 cu m of which about 30% will be suitable as sawntimber and 70% as firewood.

7.12. The amounts of value added that can be obtained per cu m by skilful marketing each log and other woodland products were shown in section 6. If the average price per cu m was, say, £300 for all products from the logs that are already felled then a total income of £390,000 could potentially be generated, but spread over a number of years. Given that the activities at The Hillyfield are predominantly manual, the conversion and marketing of all the produce is inevitably going to be spread over a number of years.

7.13. In the immediate future there are only relatively small volumes of timber projected for felling due to the premature felling of larch trees due to disease as Table 5.1 showed, but income from felling and using these trees will gradually increase over time.

7.14. Mr King-Smith has established some beds of willow coppice and because they grow rapidly

they have already started bringing in some income and the production can be expected to increase significantly over time and produce a useful regular source of income (see estimated prices in table 6.2).

7.15. As already mentioned Mr King-Smith has demonstrated that he is looking for additional sources of income to increase his enterprises' income.

7.16. Given what Mr King-Smith has achieved so far, his decision to undertake as much work himself and with the help of volunteers, his understanding of the importance of value-adding and local marketing, and his wish to use and market the whole of each and every tree, I think there is every likelihood that the woodland enterprise he has at The Hillyfield will remain financially viable over the long term.

8. BUILDINGS NEEDED FOR WOODLAND RELATED ACTIVITIES

Existing Shelters on Site

8.1. When I visited The Hillyfield on 20th August 2016 I noticed that there were various forms of shelter erected on different parts of the property. I did not undertake a detailed inspection of each of them because, as a Chartered Forester, I am not qualified to do so. However, as a Chartered Forester I am able to make an assessment of them in relation to the need for shelter in relation to an owner's ability to carry out woodland activities and to meet the basic needs of people who carry out those activities.

8.2. In addition to the various shelters, I noted that there was a lock up moveable container which Mr King-Smith told me was where he kept tools and a separate lockable lorry body where chemicals are kept that he required for activities at The Hillyfield. This seems to me to be very prudent and also a necessity in terms of Health and Safety because if any of them were stolen from somewhere unlocked, and someone came to harm, Mr King-Smith would be liable.

8.3. I noticed a number of tarpaulin shelters with open sides had been erected. There appeared to me to be one which was being used as a temporary shelter where people could work on adding value to woodland produce and another one where people can sit and relax. At least one was used for protecting tools and equipment. Given the unpredictability of the weather, and the fact there are no other permanent buildings near The Hillyfield which could be used, these shelters seem to be a necessity rather than optional extras.

8.4. Mr King-Smith has erected two removable shelters in which he was keeping firewood and some sawn planks. The sale of firewood or planks with a high moisture content is seldom of interest to customers who have become accustomed to products with a low moisture content. Also, if the roof is not 100% watertight, even small drips of rain or moisture on planks can cause significant staining, particularly of Larch, and this damage makes them unsightly and unattractive to potential purchasers. The products are much heavier to handle and transport when undried. Any customers that do buy these products, expect the price to be much lower because of the high moisture content.

8.5. I know that there were two small wooden sided composting toilets and some piped water on site. These basic facilities are considered essential to meet the needs of the volunteers; some of whom come for longer periods and stay on site. They are also used for the community related events held at The Hillyfield; the provision of both on site seems to be a matter of very minimum public hygiene.

8.6. Photos of the existing buildings at The Hillyfield are given in Annex 2.

Proposed New Barns

8.7. I am not competent to comment on the structures of the three proposed barns, but I am

able to comment on their operational necessity for Mr King-Smith's woodland business activities at The Hillyfield.

Welfare & Work Forestry Barn

8.8. The sustainable management of the woods at The Hillyfield can only be achieved by Mr King Smith working with volunteers for the reasons explained in earlier sections.

8.9. The welfare requirements for the volunteers and visitors to The Hillyfield are presently catered for by using a crew tent / tented field kitchen, a composting toilet and a solar shower. The present structures being used are very rudimentary to say the least.

8.10. The Health & Safety Executive (HSE) provide the following guidance for employers on welfare provision in their leaflet called 'Welfare at work - Guidance for employers on welfare provisions'.

8.11. 'If you employ anyone (however short the period) you must 'so far as is reasonably practicable', provide adequate and appropriate welfare facilities for them while they are at work'. 'Welfare facilities' are those that are necessary for the well-being of your employees, such as washing, toilet, rest and changing facilities, and somewhere clean to eat and drink during breaks'. 'You must also ensure that the facilities are kept clean and in good condition and that there is always an adequate supply of toilet paper, soap etc'. 'This means that you need to put in place an effective system to maintain them to a high standard, including regular cleaning. Ask yourself would you be happy to use the welfare facilities you provide for your employees?'

8.12. HSE also state that the provision of adequate welfare arrangements is important both in terms of complying with the law and keeping the workforce happy. *'People tend to perform better and be happier at their work if they are working in a safe and healthy environment'*. While the HSE leaflet does not specifically refer to volunteers, there is guidance elsewhere on how volunteers should be treated (<https://knowhownonprofit.org/people/volunteers/keeping/treating>). Minimum welfare provisions do need to be provided as they are in many forests managed by the Forestry Commission England where the public visit in any numbers.

8.13. At present value-adding to woodland produce takes place in different places in the woods at The Hillyfield, with some being carried out under tents and tarpaulins. As a result working conditions for people can be very poor, particularly when the weather is cold or wet. Communications are inevitably restricted when people are working in different places in the wood. Bringing everyone together to work in a new forestry barn would not only provide better working conditions, it would also allow better communications and strengthen community engagement while working.

8.14. At present the welfare and working conditions for volunteers, and anyone else who visits the woods, can only be described as extremely basic as the photos in the annex show and the new building is required to improve the conditions for everybody working or visiting the woods. The hard standing that has recently been constructed, where logs can now be stored that are going to be worked, seems to be a suitable location for the Welfare & Work Forestry Barn.

8.15. There is provision in the proposed Welfare & Work Barn for some sleeping accommodation for volunteers as this is necessary to keep the costs of using volunteers down. Providing alternative accommodation elsewhere would be another cost that could affect the financial viability of the woodland activities. There will also be a benefit for the volunteers who will be able to stay together and build up a community feeling while they enjoy the experience of being at The Hillyfield.

Firewood & Timber Drying Barn

8.16. The purpose of this barn is for drying firewood and milled timber. As identified in a previous section, the production of firewood and milled timber are two of the ways of adding value and

generating income from logs.

8.17. Firewood can be left in the open to dry with, or without some form of cover on top. The drying time is totally unpredictable as it depends on rainfall, humidity and the degree of exposure to wind. The quality also tends to be poor because the edges can get frequently wet and it can get affected by soil and vegetation. Also, if firewood is being loaded in wet weather then the entire pile can get wet. This means that any firewood sales or deliveries can only be done in good weather which restricts the development of this market's potential.

8.18. Most purchasers of firewood only wish to buy firewood with a moisture content of 25% or less. This is almost impossible to achieve if the wood isn't protected from weather for a period of time. There are a number of British Standards and European Standards (e.g. ISO 17225 Parts 1 to 6 (superseding EN 14961 Parts 1 to 6 in 2014)) and the overarching quality standard EN 15234-1 that applies to the solid fuel and biomass industry with two in particular relating to firewood for non-industrial use. These state that the moisture content of firewood should be a minimum of 25%, with some stoves requiring 20% moisture content. Mr King-Smith will only be able to develop a firewood market locally if he can dry the firewood down to a moisture content of 25% or less. The proposed barn will allow him to do that.

8.19. In looking at the size of the proposed barn, it is also important to recognise that the volume of a log when converted to a stacked firewood volume can occupy a space some 20% to 40% greater than the log volume depending on the quality of the logs. Space also has to be allowed for workers to gain access and stack and load firewood and allow a vehicle in, so the firewood can be loaded in dry conditions. The stacks must also be limited in height for safety reasons for workers.

Milled Timber

8.20. Milling timber on a mobile sawmill using the logs at The Hillyfield provides a further opportunity to significantly add value to timber grown on site. Mr King-Smith has recently invested in a small modern mobile sawmill which he uses to cut timber to order. Profitability will be further increased by being able to offer seasoned timber, as well as reducing the risk of the product becoming unmarketable through blue-black staining which occurs when softwood timber is left undried or is stored in damp conditions. Mr Lane has identified that 95% of the products created at The Hillyfield require dry storage for adding value which indicates the importance of having a wood-drying barn.

8.21. A rule of thumb for the UK is that 25mm (1") thick material will take one year to dry, 50mm (2") thick material two years and 75mm (3") thick material will take 3 years to reach equilibrium moisture content by air drying, but the times can often be longer than these. In addition to thickness, drying times depend on the characteristics of the timber being dried, climatic conditions (temperature and relative humidity) and airflow through the stack. Some timbers will have higher green moisture content than others. Furthermore, heartwood and sapwood from the same tree may have very different drying characteristics. Air drying can only be used to reduce the moisture content of timber to around 14 to 20 %. This will only just be low enough to go directly into buildings where there is central heating.

8.22. As all milled timber should have stickers placed between each board to speed drying, the space occupied by boards being dried is almost twice the board volume depending on the thickness of the boards. In addition, space is needed for workers to stack them and to take the boards from the stacks so that the quality and appearance of the boards can be checked as both can be very important to a customer.

Building Size

8.23. The quality and therefore the price and marketability of about 95% of the products being produced and sold at The Hillyfield depend on them being properly air dried; the only exception being the willow whips. Re-wetting of wood not only slows the drying process but leads to a

reduction in product quality. The South Brent area where The Hillyfield is located experiences almost 1,000 mm of rainfall annually and days of persistent drizzle so the size of the proposed barn must be able to accommodate the products produced each year, but also products that need to be dried under cover for up to 3 or 4 years before they reach a moisture content that allows them to be sold.

8.24. The size of the building has been determined by the following operational requirements which are for six 4m wide bays 8m deep based on there being:

- 2 bays for firewood 52m³ allowing air gaps between stacks (max height 2.0m) and room for a vehicle to back into each bay for manual loading.
- 1 bay for rocket logs 20m³ (max height 2.0m where supported).
- 2 bays for planked timber in stick with space to allow for manual selection from side racks in each bay allowing for storage of 70m³. This allows for material being 'in stick' for several years and is not an annual throughput figure.
- 1 bay for charcoal, hazel and willow rods and additional long-term space for planked timber boards of varying thickness and widths. More space may be required for coppice products if the market develops as anticipated based on present indications.

8.25. I think the space allowed for in the barn will be required for the uses identified and the space allocated for each use is appropriate given the need to add as much value as possible at The Hillyfield. One consequence of limiting the size of the barn to its proposed dimensions will be that it will require a regular flow of material through it; firewood after up to two years and planks after a longer period but as soon as the moisture has reached a customer's requirements of 20% or less.

8.26. I think the proposed slatted vented sides to the building will be essential to allow the circulation of air to reduce the moisture content of the material stored in it.

Equipment Barn

8.27. The purpose of this barn is for storing the equipment that is on site either parked outside, and exposed to the elements, or under cover in one of the shelters, but exposed along the sides. Without the proposed barn, the equipment will deteriorate faster than it would if it was stored in a barn. There are also potential Health & Safety issues for Mr King-Smith if equipment is left on site without being safely locked up. Although the site is relatively remote, there is also the risk of the equipment being stolen or vandalised if not stored in a barn. I understand that at least one theft has occurred in the past.

8.28. The suggestion that all equipment has to be removed from the wood each night and brought back each morning is impractical. The assumption underlying this suggestion is that another place has to be purchased to store the equipment and similar problems may be encountered with storage even ignoring the cost implications of this.

9. CONCLUDING STATEMENT

9.1. Based on the information that I have read, my visit to the site on 20th August 2016, and talking to Mr King-Smith, I have concluded that:

- The woods at The Hillyfield are being sustainably managed in accordance with a Woodland Management Plan that has been professionally prepared and approved by Forestry Commission England, and I fully support how this is being done.
- Mr King-Smith is minimising the costs of undertaking the necessary woodland management

activities at The Hillyfield by undertaking the activities himself and with the help of volunteers. Any alternative arrangements would increase costs and therefore could make woodland management unaffordable for Mr King-Smith.

- The active management of the woods and the successful delivery of the Woodland Management Plan also depend on adding value to all parts of the trees and harvested logs. There are a number of clearly identified markets where this added value can be captured with a known pricing structure in place.
- Maximising the value added to all parts of a tree requires good marketing and a great deal of time and effort. Mr King-Smith is able to do this by doing some of the work himself and with help from volunteers. If he was not able to use the volunteers, he would not be able to add as much value and the amount of material he could produce would be significantly less. If that happened, it is likely that the income derived from woodland product sales would fall significantly and would be insufficient to meet the necessary woodland management costs for the sustainable management of the woods.
- The structures in the wood presently used by Mr King-Smith, the volunteers and visitors to the site are adequate but extremely basic. The new Welfare & Work Forestry barn, made out of wood, will replace a number of fairly rudimentary structures in the woods and will provide simple, but better working and welfare facilities for everyone. This new barn should mean that Mr King-Smith can more confidently meet the guidance provided by the Health & Safety Executive (HSE) on welfare provision.
- At present firewood and milled timber are protected in a couple of simple wooden structures in the wood. While these structures do provide some protection, they are far from satisfactory and as a result drying times for firewood and milled timber are much longer than they need to be when using air drying methods. The present structure being used appears too small. Once the structure is full, no more firewood can be sold until it is all dry and sold; then the structure can be re-filled. The proposed firewood and timber drying barn will replace the two present structures which should allow faster drying of firewood and milled timber and, with better protection, the quality of the material should also improve. Without the barn, the income that can be generated from firewood and milled timber can be expected to be significantly less. This will then reduce the financial viability of managing the woods at The Hillyfield.
- Most of the equipment at The Hillyfield is kept under cover in a number of different structures to protect it from the elements. Most of these are barely adequate and will result in the condition of the equipment deteriorating faster than it needs to and will add to costs in the longer term. The cramped conditions and the difficulty of accessing tools also reduce operational efficiency, particularly when different people work in the woods at different times. Keeping it all in one place will also increase its security.
- The approach being taken at The Hillyfield may be less usual, but it is not a unique case. Some similar but not identical examples in a variety of ownerships that are using and encouraging volunteering, retaining and developing woodland related skills, adding value to woodland products and marketing are: www.alvecotewood.co.uk, various woodland owner members of the Small Woods Association and members of the Community Woodlands Association (<http://www.communitywoods.org/resource>). Other organisations are also encouraging volunteering and provide educational opportunities and experiences such as the Forestry Commission England, the Woodland Trust, Wildlife Trusts, Trees for Life, Moor Trees and the National Trust.
- More importantly I think that if Mr King-Smith is not allowed to continue with his present and planned activities, it would send out an extremely bad message to all owners of under-managed or unmanaged woods which account for 47% of all woods in England and it would be contrary to a number of Government policies.

John Clegg Consulting Ltd

March 2018

ANNEX 1: FOREST SECTOR PRICING STRUCTURE SOUTH WEST ENGLAND

The Forest Sector Pricing Structure in South West England in 2015 & 2016		
Item	£/ cu m	Information Source
STANDING TIMBER PRICES		
Larch	10	The Hillyfield
Douglas fir	10	The Hillyfield
Conifers (England)	7.70 - 37.33	Forestry Commission (2015 -2016)
ROADSIDE PRICES		
Softwood	40 -49	Woodland Management Consultant 1
Larch	22- 27	Woodland Management Consultant 1
Larch	28-45	The Hillyfield
Douglas fir	28-45	The Hillyfield
Douglas fir logs (18 cm+ top diameter)	33	Woodland Management Consultant 2
Larch bars (18cm+ top diameter)	33	Woodland Management Consultant 2
Douglas fir (14 - 18cm diam)	24	Woodland Management Consultant 2
Larch bars (14 - 18cm diam)	24	Woodland Management Consultant 2
Western Hemlock (18 cm+ top diameter)	30	Woodland Management Consultant 2
Chipwood	22	Woodland Management Consultant 2
Fencing posts	30	Woodland Management Consultant 2
Hardwood firewood	42	Woodland Management Consultant 2
Firewood	40s	Woodland Management Consultant 3
Conifers (England)	16-51	Forestry Commission (2015 -2016)
Round Timber		
Specialist roundwood	50-317	The Hillyfield
Fence posts	113	The Hillyfield
Strainer posts	141-211	The Hillyfield
Hardwood fencing	665	Woodland Management Consultant 3
Oak logs for sawing (FC Auction)	75-233	Woodland Management Consultant 2

Item	£/ cu m	Information Source
SAWN TIMBER		
Green / unseasoned squared softwood logs	283 - 521	Rattery, Bartons, Duchy, Dart Valley, Vasterns, East Bros, Woodmanship
Green / unseasoned softwood cladding	303-500	Rattery, Bartons, Duchy, Dart Valley, Vasterns
Green / unseasoned planks	211-459	The Hillyfield
Coniferous	140 - 300	Woodland Management Consultant 3
Seasoned softwood planks	350-1,250	Rattery, Bartons, Duchy, Dart Valley, Vasterns, Beach Bros Ltd, Woodmanship
Sitka spruce carcassing	180	Woodland Management Consultant 3
Seasoned planks	600	The Hillyfield
Graded Douglas Fir & Larch	450	Woodland Management Consultant 3
Green Oak sawntimber	565 -1,200	Bartons, Local sawmill, Duchy, Dart Valley Timber, Vasterns, East Bros, Woodmanship
Seasoned hardwoods	880-2,820	Duchy, Dart Valley Timber, Beach Bros, Woodmanship
Oak planking	1200-2000	Woodland Management Consultant 3
Ash sawntimber	880-1,350	Duchy, Dart Valley Timber, East Bros, Beach Bros, Woodmanship
Sycamore sawntimber	880-1,350	Duchy, Dart Valley Timber, East Bros, Beach Bros, Woodmanship
Coppice		
Hazel (7 years)	175	Woodland Management Consultant 1
Cherry (21 years) standard	2,200	Woodland Management Consultant 1
Other Products		
Firewood	120	The Hillyfield
Firewood seasoned & processed	135 - 165	Woodland Management Consultant 3
Charcoal	200	The Hillyfield
Rocket logs	882-1,100	The Hillyfield
Biochar	1,000	The Hillyfield
Occasional sales of other products		
Sawdust, woodchip, bark, willow saplings, mushrooms, herbs and foliage		The Hillyfield
End Use Sale Prices		
Sawn, planed softwood in B & Q	484	Woodland Management Consultant 2
Biomass chips (chipped, dried & delivered)	100	Woodland Management Consultant 2

ANNEX 2 PRESENT STRUCTURES AT THE HILLYFIELD

Existing Shelters on Site

9.2. When I visited The Hillyfield on 20th August 2016 I noticed that there were various forms of shelter erected on different parts of the property. I did not undertake a detailed inspection of the way each of them was constructed because, as a Chartered Forester, I do not have the building qualifications or knowledge to do so. However, as a Chartered Forester I am able to make an assessment of them in relation to the need for their use in relation to an owner's ability to carry out woodland activities and to meet the basic needs of people who carry out those activities.

Quarry



This is a small wooden shed that could have been there about 20 years. It is not in particularly good condition, but it is used for storage and as a place where people who come to work in the wood can get some shelter from the weather, have tea and dry or change their clothes. It seems very necessary to have a place for these functions.



This is a moveable lorry body that looks as if it has been in the quarry almost as long as the shed. It is used to store oils, lubricants, compressor and tarpaulins. These items are all materials that would be considered normal to have for woodland management operations or for providing temporary protection for equipment. It would be unsafe to leave oils and lubricants unlocked and other items need to be kept locked up to prevent theft.



Mr King-Smith thinks this moveable, lockable lorry body has been there for over 8 years. It is used to store hand tools, lights, chainsaws, small quantities of fuel, and miscellaneous other materials. These are all items that would be expected to be used for woodland operational activities. All equipment needs to be kept locked up to prevent theft and The Health & Safety Executive require fuel to be kept locked up.



I was told this simple pole and tarpaulin structure was put up in February 2011. At the time of my visit it was being used for storing some poles, planks of wood and some show pieces. It provides some degree of protection for the wood being stored there but rain can blow in from the sides and particularly at the end. Some protection is required for these items or they will deteriorate.



These two easily moveable wooden buildings with open ends were constructed in 2015. One is being used for storing firewood and the other planks of wood that were sawn from trees felled at The Hillyfield. Both firewood and planks need as much protection as possible from the weather so that they can be air dried down to a moisture content of 25% or less. Without this, fungal decay, weathering or insect attack can occur.

Hillyfield Plantation



This temporary pole and tarpaulin structure was put up in October 2012 and is being used as a workshop. It is used when conditions are wet. It was also being used for storing some tools and a very limited amount of timber. Some covered protection is necessary for people working in the wood, and for equipment, but the protection it provides is very rudimentary.



This very simple structure put up in 2015 is beside an internal track and is used for storing kindling. The photo shows that the protection the arrangement provides is not particularly effective or efficient for reducing the moisture content of the kindling prior to sale.



I did not go inside either wheeled caravans, but I understand that they are where seasonal workers can stay while working at The Hillyfield if they wish. A number choose to do so rather than pay for accommodation and the purchase of a vehicle and fuel to go backwards and forwards daily to The Hillyfield. The provision of two caravans for them seems to be a very practical solution and is beneficial since it reduces car movements on local roads and there are savings in the use of fossil fuels with subsequent environmental benefits.

There are two wood clad composting toilets. Those working on site and visiting it need somewhere to go to the toilet and these seem to be perfectly sensible arrangements to meet these needs.



This is a field kitchen that was first put up on site in 2008 and was then moved to its present position in 2011. It is used for cooking and as a place for workers and volunteers to have tea with protection from the weather. This seems to be a necessary structure if volunteers and community events are held at The Hillyfield.