



Design & Access Statement: Plot A

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For a Living, Working Countryside

This report has been prepared by Zoe Wangler of the Ecological Land Co-operative Ltd. and follows the guidelines set out in the CABI publication *Design and Access Statements: How to write, read and use them* (2006). It is written to be read in conjunction with the planning application, plans and other documents accompanying the application.

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INTRODUCTION

This application seeks consent for one new temporary agricultural worker's dwelling, one new (shared) agricultural barn and one small greenhouse, tied to a new farming enterprise located at Greenham Reach in Holcombe Rogus. It forms part of a proposal for three new low impact smallholdings for new entrants to ecological agriculture developed by the Ecological Land Co-operative, a co-operative society and social enterprise.

The application details the proposed infrastructure to enable the new farming enterprises to be 'low impact' or highly environmentally sustainable. These are: a 4.9kW photo-voltaic array and corresponding battery bank; a Wetland Ecosystem Treatment (W.E.T.) System for grey water; rainwater collection and storage; compost toilet; and bore hole. It also sets out how the existing species' habitats will be preserved and new habitats established.

Unusually, this application includes a Management Plan and draft leasehold agreement which together add an additional layer of protection to the site and its continued agricultural use. These documents are designed to ensure that the site will remain in agricultural use, affordable and managed ecologically.

The Agricultural Appraisal which accompanies this application along with the four appendices to this Statement set out in detail the justification for the temporary dwelling as per PPS7 Annex A.

CONTEXT

Physical

The site lies in the Parish of Holcombe Rogus in an area of rolling farmland with a relatively scattered settlement pattern. The area is in the south west of Natural England's National Character area 146, Vale of Taunton and Quantock fringes, and is a good example of the character of the Vale of Taunton. The area's description includes "a patchwork of arable, pasture, market gardening and orchards" with "irregular, medium-sized fields [that are] generally bounded by thick hedgerows" and where "lines of alder are commonly conspicuous along streams".

The village of Holcombe Rogus is one and a half miles away to the west and the hamlet of Greenham is just under a mile away to the east. The small town of Wellington is five miles to the east, along the A38, and Tiverton lies ten miles to the west. Junction 27 of the M5 is six miles to the south west, and Junction 26 is seven miles east.

The site of the proposed barn, temporary dwelling, greenhouse and demountable polytunnel can be seen from three other properties, each over 300 metres away. The barn, temporary dwelling and greenhouse will be screened by new rows of trees and the demountable polytunnel will be almost entirely screened by the proposed planting scheme, market garden, orchard, etc. See Landscape Plan (L-09).

As set out under Landscaping below, the prospective tenant intends to establish a mixed holding including over a hectare of orchard and market garden which will fit within the traditional character of the area described by Natural England as a “patchwork of arable, pasture, market gardening and orchards”¹.

Social

The Ecological Land Co-operative (ELC) ran a short-listing process to select the prospective tenants for Greenham Reach. As part of this process references were sought for the applicants. It was clear from Mr Boyle’s referees that aside from his horticultural experience, Mr. Boyle will bring to Greenham a truly exceptional sense of civic responsibility, as well as exceptional commitment and work ethic. Mr Boyle plans to establish a mixed organic holding at Greenham Reach which will provide high quality organic and low (or no) carbon produce to local markets.

As detailed in the section ‘Involvement’ below, the ELC has met with members of the Parish Council of Holcombe Rogus on two occasions and has met with neighbours on three occasions. Although a number of issues have been raised during these meetings, no one has said that there are any aspirations, held locally, for the site, other than to ensure that it remains in agriculture.

Economic

Mr Boyle’s business will create employment for Mr Boyle and will create a full-time apprenticeship. Mr Boyle will also be supporting local retail outlets and local services.

¹ Natural England’s National Character area 146 Vale of Taunton and Quantock

Planning policy

As per discussions with planning officers at Mid Devon District Council, this application seeks to be excepted from the overarching policy of no development in the open countryside. PPS7, Annex A, allows for accommodation in the open countryside where it is required to enable agricultural workers to live at their place of work. This policy, *Agricultural and other Occupational Dwellings*, requires applicants to meet a set of criteria. An independent agricultural assessor has provided a written assessment considering whether these tests are met by Mr Boyle. Her report 'Agricultural Appraisal' accompanies this planning application.

The Council's planning officers expressed concerns over whether a farm of the size we are proposing, and with the farm activities being proposed, is able to meet the functional and financial tests set out in PPS7 Annex A. In response to this concern we have also:

- Provided a table listing applications for temporary agricultural workers' dwellings with the same or similar farming activities as those proposed by Mr Boyle, and the grounds on which they were accepted to meet the functional test. In this table we have also discussed how the functional needs assessment in these other applications applies to the Mr Boyle's application (Appendix 1 to this Statement).
- Looked at the issue of scale and functional need, calculating the man hours required by the business and the likelihood and frequency that, as per the policy, Mr Boyle would have to be "readily available at most times"² (Appendix 2 to this Statement).
- Looked at how farm businesses operating at the scale proposed here have had "the scope to diversify and have flexibility in developing the enterprise"³ (Appendix 3 to this Statement).

Beyond Annex A, a number of local and national planning policies support this application. Mid Devon's Core Strategy states that "Mid Devon is a rural district and the Council will promote appropriate agricultural diversification schemes to help support new businesses as traditional agricultural and forestry sectors decline, threatening rural employment levels" (COR4). The Devon Structure Plan recognises there may be a need for small-scale development

² This phrase 'readily available at most times' refers to the criteria set out in Annex A of PPS7 for the functional test

³ This refers to a question asked by the Area Planning Officer in her email of 02/12/2011

outside of Local Centres where it supports regeneration and recognises landscape and accessibility constraints (ST16) while Mid Devon's Core Strategy recognises in COR18 that the Council will need to support "appropriate forms of agricultural and rural diversification to support the rural economy and sustain the environmental qualities of the Countryside".

At the national level, it is one of the objectives of PPS7 to "...promote sustainable, diverse and adaptable agricultural sectors where farming achieves high environmental standards, minimising impacts on natural resources...". Mr Boyle's proposed business will fulfil these criteria as it will be low impact and have high environmental credentials, not least in the diversity of plant species it will establish. Mr Boyle will be introducing an agroforestry system to the locality and will provide a demonstration of this system of agriculture which could have a positive benefit for the future of agriculture. In his letter of support, Emeritus Professor Wolfe of Wakelyns Agroforestry writes "there is an imperative for dissemination of this concept and its practical progress. We need examples like this to illustrate what is possible with sensitive and integrated land use."

PPS1 makes it clear that new development is to be environmentally sustainable, and in particular, that it should "make a full contribution to delivering the Government's Climate Change Programme and energy policies". Ecological footprint analysis show that residents of ecological land based businesses use less than half the natural resources used by the average UK resident. Mr Boyle's projected annual carbon emissions from personal consumption will be less than 2 tonnes⁴ compared with Mid Devon's average of 11.2 tonnes per person. Accordingly, this project will pioneer just the scale of emissions reductions necessary for us to meet the legally binding targets set under the UK Climate Change Act – reductions of 50% by 2025 and 80% by 2050 (compared to 1990 levels). Furthermore, organic agriculture has been found by the Food and Agriculture Organisation of the United Nations to "perform better than conventional agriculture on a per hectare scale, both with respect to direct energy consumption (fuel and oil) and indirect consumption (synthetic fertilizers and pesticides), with high efficiency of energy

⁴ This consists of 1.1 tonnes generated by government services (Mr Boyle has no control over this), 0.2 tonnes from bought in food, 0.07 tonnes from bus and train journeys (Mr Boyle has no car and principally cycles), and 0.5 tonnes from all other items (recreation and leisure facilities, hygiene, furnishings, clothing & footwear, alcohol, post and telecommunications, books, newspapers & magazines).

use”⁵. A mixed small holding featuring minimal tillage, plenty of tree planting and a particular concern with soil building and fertility can play a significant role in sequestering carbon from the atmosphere. As Mr Boyle will not only be establishing an organic holding but also making no use of fossil-fuelled farm machinery; he will be modelling an agricultural method low on carbon emissions and high on carbon sequestration.

The urgent need to minimise carbon emissions and energy consumption and support the growth of renewables is set out in numerous policies: ST1, COR18, CO12, COR5, CO11 and AL/IN/6. As above, Mr Boyle’s projected carbon emissions are 18% of the average for Mid Devon.

The Community Strategy for Devon (2004) includes the goals of helping to: “... tackle national and global environmental issues, make it easier to adopt greener lifestyles and working practices through the conservation of natural resources, recycling, traffic management, enhancing landscape and biodiversity, adapting to and mitigating the effects of climate change” (p16). If Mr Boyle is granted planning permission and implement his business plan he will reduce his ecological footprint, increase habitat on the site, conserve water, enhance the landscape and he will be adapting to and mitigating the effects of climate change.

The Devon Structure Plan advocates the enhancement of biodiversity (CO9). The ecologist assessing the proposals found that “overall there is likely to be a potential benefit to wildlife, including some protected species and habitats Low impact developments such as that proposed here tend to benefit wildlife by introducing low input, more extensive agriculture, increasing habitat diversity and re-introducing traditional management techniques” (see accompanying Ecology Assessment).

The Devon Structure Plan also advocates reduction in the production of waste, re-use, composting and material recycling (WM1). Ecological footprint analysis carried out on similar ecological land based businesses show that much lower than average amounts of wastes are generated due to both lower consumption of packaged goods, white goods and consumer goods generally, and greater utilisation, repair and recycling of those items purchased.

⁵ Scialabba and Hattam (Eds.), 2002, *Organic agriculture, environment and food security*, Food and Agriculture Organization of The United Nations, Rome, 2002

Finally, this application forms part of a proposal for three new low impact smallholdings for new entrants to ecological agriculture. Each application is made individually, as required by PPS7, Annex A, and independently meets the criteria set out in that policy. However, many additional synergies and benefits are achieved by clustering three holdings in a shared development. These include the use of waste products from one holding's enterprise as inputs for a neighbouring enterprise and the ability to share marketing, sales, processing, transportation, expertise, labour and other resources between holdings. The beneficial potential of such synergistic effects has been noted in recent low impact development policy, appeal decisions and research such as: the Welsh Assembly Government's One Planet Development Policy within Technical Advice Note 6; *Surviving and Thriving on the Land*, Rebecca Laughton, 2009; and the appeal decision for Lammas development of 9 eco-smallholdings (APP/N6845/A/09/209672). Whilst this application stands on its own merits, therefore, it should also be read in the light of the additional synergies which will be achieved through its location within the wider proposal of three low impact smallholdings.

Material considerations

We strongly believe that there are substantial material considerations:

1. The ELC, a social enterprise and co-operative society, is providing an affordable route into farming at a time when land and rural housing is unaffordable for those on agricultural wages. As the Soil Association comment in their letter of support "The Soil Association works directly with new entrants ... for many the biggest obstacle is getting their first foothold on the farming ladder as a result of the prohibitive cost of land and rural housing ... The Ecological Land Co-operative model to provide small holdings which include accommodation and infrastructure such as those in this proposal is a new and innovative solution and we welcome and support this approach. Not only will these small holdings help to support the livelihoods of their occupants but we believe that they will help to inspire and educate the wider public".
2. The ELC would safeguard the smallholding for ecological agriculture through the proposed lease, Management Plan and Section 106 Unilateral Undertaking. The ELC has asked for every additional condition possible to ensure that the proposed smallholding is never taken out of agricultural use.
3. The farm will have a role as a demonstration of agroforestry, as an example of fossil free agriculture and will re-introduce traditional skills which could have a positive benefit for

both the future of agriculture and climate change. The need for such examples has already been acknowledged in the letters of support from Emeritus Professor Martin Wolfe and Professor Tim Lang.

4. The development will have a role as a demonstration of low impact living which could support the government's work on behaviour change to reduce carbon emissions.

Involvement

So far the ELC has met with the Parish Council on two occasions and has visited neighbours on three occasions. Follow-up correspondence has also been generated. Neighbours and other members of the community have raised a number of issues which the ELC has sought to address:

Financial viability

Several people had major doubts that anyone could be financially viable on 6 - 9 acres of land. As a result of this concern the ELC commissioned research into the viability of existing ecological small farms (those based on 10 acres or less). The result was the publication of *Small is Successful: Creating a Sustainable Livelihood on Ten Acres or Less* (submitted with this application). The research found it was indeed possible to make a living on a small acreage. The eight businesses profiled in the report: achieved high yields per unit area by intensive and /or diverse cropping; high value crops; and adding value to raw products through processing and / or direct marketing.

The publication featured in the Research Council UK's (2011) report *Big Ideas for the Future: UK research that will have a profound effect on our future*. This report identified the 100 most important pieces of research likely to shape the UK's future.

Protection of the site

Several people had doubts that the ELC could protect the site from being developed into commuter houses or in some other way being taken out of agricultural use. The ELC have developed a leasehold agreement – circulated to the secretary of the Parish Council's planning committee for comments – that requires the site to remain in agriculture. As a result of a discussion with the Parish Council's planning committee we have also submitted a draft Section 106 Agreement to provide a further layer of protection.

Traffic

The number of vehicles on the site (all 3 holdings combined) is limited to four by the Management Plan, lease and Section 106 Agreement, and they are to be used by all residents as a pool. The Management Plan requires that tenants minimise journeys, and that a record is kept of vehicle use in order to evaluate the vehicle pool annually. As livelihoods are based on the site this will reduce the need to travel. Nonetheless, some additional vehicle journeys will be generated. The neighbours expressed concern that these additional traffic movements could create problems for vehicles passing in the lane to the west of Greenham Reach. Accordingly, the ELC proposal includes the provision of an additional passing point (drawing number L-05), an idea proposed by neighbours within ELC's consultation process.

Evaluation

This application for a low impact temporary agricultural worker's dwelling has resulted from the need to create *affordable* and *sustainable* residential accommodation for agricultural workers. It forms part of a scheme for new entrants to ecological agriculture that aims to address both the chronic shortage of *affordable* opportunities for new entrants to agriculture and the need to support *low impact* developments.

Design

The site has been designed to provide the necessary infrastructure to create a low impact residential smallholding while at the same time ensuring that existing habitat and landscape is maintained and enhanced, and that the negative visual elements of the development are minimised.

Temporary dwelling

The location of the temporary agricultural worker's dwelling proposed in this application is well related to the proposed barn and the other two proposed temporary dwellings. It will, initially at least, be seen from the road and from three farmhouses. To reduce visual impact, Mr Boyle will be planting two rows of fast growing trees to serve as a screen.

The temporary dwelling will be, in the first instance, a mobile home. Mr Boyle anticipates submitting to the Council drawings for a self-built low-impact temporary dwelling within the first six months of being granted temporary planning permission.

Barn

A shared general purpose barn is proposed. On the south-facing roof photovoltaic cells will be mounted. The barn will be constructed from a simple timber frame in Larch using a typical post and beam structure, with timber cladding. The roof will be of Trisomet 333 composite panels to enable rainwater run-off, collected in one 10,000 litre Balmoral water tank at the back of the barn (see drawing L-03).

The barn is sited in one of the more exposed parts of the Greenham Reach site which can be viewed by three or four surrounding farmhouses, although these are many hundreds of metres away. To ensure minimal visual impact, trees will be planted along the southern boundary of the barn yard. This screen will hide the barn from view, whilst being kept low enough to ensure it does not shade out the solar panels.

Polytunnels

One moveable polytunnel is proposed by the applicant. This will be visible from three neighbouring farmhouses and the adjacent road. However, the proposed market garden and orchard will significantly reduce the polytunnel's visual impact as will the applicant's proposed planting scheme mentioned in his business plan. It is our understanding from conversations with planning officers that as the polytunnel is moveable it does not require planning permission.

Greenhouse

A demountable greenhouse of reclaimed timber and glass is proposed. It will be sited, as the temporary dwelling, behind the two proposed new rows of trees. It is detailed in drawing numbered L-06.

Internal track ways

There will be a vehicular access track from the existing northern access to the barn yard. There will also be an internal track way. The tracks and barn yard will consist of 'grass paving' which allow for the maintenance of the Greenfield appearance of the land while at the same time protecting the soil from erosion

USE

The proposed change of use involves the siting of a temporary agricultural dwelling to provide accommodation for Mr Boyle, who intends to be a full time key worker on the holding. This proposed use is supported in the planning policies set out in the previous section.

AMOUNT, LAYOUT and SCALE

The proposal is for a single temporary agricultural worker's dwelling, a small greenhouse and a single agricultural barn (which is to be shared by three smallholdings). Each of these structures will be of modest size: a) policy allows for the temporary dwelling to be a single unit with maximum dimensions of 20 metres by 6 metres with a maximum internal ceiling height of 3.05 metres, b) the barn is proposed to be 4.5 metres by 15 metres, and c) the greenhouse is a proposed 3.3 metres by 7.2 metres.

Mr Boyle plans to site one polytunnel, 12ft x 40ft and two mobile poultry houses.

LANDSCAPING and APPEARANCE

In the Ecological Assessment of the site in 2009, the ecologists wrote that "Greenham is in the south west of Natural England's National Character area 146 Vale of Taunton and Quantock fringes. This describes the vale as having 'a patchwork of arable, pasture, market gardening and orchards', 'Irregular, medium-sized fields are generally bounded by thick hedgerows, commonly on the top of banks', 'Tree cover is generally afforded by hedgerow trees', 'Orchards were, for a long time, a prominent feature of the Vale'. They also reported that the "recommendations for the future in National landscape character area are that

- The rural and agricultural character of this landscape, especially the pattern of irregular fields and thick hedgerows with oak trees, is important.
- The retention and appropriate management of hedgerows, hedgerow trees and small copses and woods should be addressed.
- There are opportunities to retain, manage and replant at least some traditional orchards"

The applicant intends to: retain and manage the hedgerows, hedgerow trees and small woods on the land; and plant additional trees. Over a hectare of agroforestry will be established which will

generate new opportunities for wildlife whilst providing new tree based crops (timber, fruit, nuts etc). In the proposed market garden, crops will be rotated and green manure used to maintain and improve soil fertility and biodiversity. Finally, a new small wood will be created on the north side of the entire site and trees will be planted along the proposed trackway from the access to the barnyard. The species proposed in this new wood are as follows: *Alnus glutinosa* - Alder, *Prunus spinosa*-Blackthorn or Sloe, *Prunus avium*-Wild Cherry, *Malus sylvestris*-Crab Apple, *Sorbus aucuparia*-Rowan, *Sambucus nigra*-Elder, *Viburnum opulus*-Guelder-rose, *Corylus Avellana* – Hazel and *Fraxinus Excelsior* – Ash.

The applicant's landscape plans are further detailed in drawing number L-09.

ACCESS

****Please also see the Transport Statement****

Present situation

Currently the holding is accessed from the public highway immediately to the west of the site. This same access point will be used for the purposes of accessing the temporary residential accommodation. The fact that the existing access is of considerable age ensures that there will be no need for excavations and therefore no damage to the hedgerow, however, either side of the entrance will require trimming to ensure highway visibility and safety.

Parking

The Management Plan for the site and the proposed Section 106 Agreement limit the number of vehicles that can be operated from the entire site (all three smallholdings combined) to four. There will be sufficient space within the proposed farm yard area to park four vehicles and there will be an area within the existing site for visitor parking spaces.

Turning

The farm yard area provides sufficient space to turn both a small tractor and domestic vehicles. Furthermore, the internal track way has been designed so that vehicles can make a circle around the site without having to turn around.

APPENDIX 1: THE CASE FOR FUNCTIONAL NEED

Table A lists the grounds on which the functional test was considered to have been met in applications for temporary agricultural workers' dwellings with the same or similar farming activities as those proposed by Mr Boyle. In order to aid the comparison, the applications from which these grounds are taken are summarised as follows:

Site	Description	Farm size (ha)	Permission	Box scheme
Staverton Bridge	Plant nursery with 2 glasshouses, 2 polytunnels and raised beds.	0.4	South Hams District Council 14/0970/01/F	✘
Bee Organics	4 polytunnels and a glasshouse for propagation, 'numerous raised beds', producing organic heritage and unusual salad leaves, vegetables, herbs, top and soft fruit and nuts.	1.6	PINS APP/K1128/A/ 10/2124162	✘
Ourganics	Off grid Permaculture demonstration site with small amount of local food sales.	2.0	West Dorset District Council 1/W/04/000790	✘
Kimberley Nurseries	Wholesale nursery growing 500,000 plants with 0.16ha polytunnels and 0.02 acre glass house.	2.3	South Hams District Council 44/1048/09/F	✘
Spring Grove Market Garden	Organic field and polytunnel grown vegetables, flowers and herbs, with some eggs.	2.6	Taunton Deane Borough Council 23/03/0024	No, yes in past
Tir Penrhos Isaf	Permaculture holding.	2.8	Snowdonia National Park NP5/60/7B	✘
Woodland Organics	Organic field vegetables and fruit and eggs.	2.9	PINS APP/P1133/A/00/ 1047441	✓
Rosebarn Nursery	Nursery with focus on chilli production and mail order plants but also with small orchard, a range of soft fruit, and raised vegetable beds. Organic and off-grid.	3.2	PINS APP/J9497/C/11/ 2149857 and 2149861	✘
Coppergon	Fresh and dried flowers, stabling of horses, eggs, pullets, slaughter cockerels, rare breed fowl, sale of weaners, honey.	3.5	PINS T/APP/C/93/Q0830 /629612 & 3 and T/APP/Q0830 /A/93/226397/P6	✘
Strong Orchard	Commercial apple orchard, cider, juice and vinegar production, artistic topiary, poultry and bee keeping.	6.0	PINS APP/F1230/C/09/2114764	✘
Sydling Brook	Fruit and vegetable production business from 4 polytunnels, 3 hectares of orchard and ~ 3 hectares vegetable beds.	6.5	PINS APP/F1230/C/07/2055628 and 9	✓
Trevalon Organics	Commercial vegetable production, predominately salad crops from 2 polytunnels, 1 propagation tunnel and 1.6 hectares field crops.	7.4	PINS APP/K0805/C/07/2058055 and 2058053	✓
Five Penny Farm	Commercial but small-scale production of organic eggs, vegetables, dairy, fruit, herbs, honey, and processed product enterprises.	17 (2 families)	PINS APP/F1230/C/04/1162420,21,22,25 and APP/F1230/C/04/1159852	✘
Venn Copse	Organic broiler rearing enterprise rearing 5,500 chicks per week.	11.5	PINS APP/Y1138/A/06/2015540	✘

Table A: The Case for Functional Need

Functional need	Reasoning ⁶	Where this has been accepted	How precedent relates to Mr Boyle's proposals
Range and quantity of activities	The proposed farm business is labour intensive, including a wide range of crops and some animals, and a range of items produced, most of which will require the attention of Mr Boyle most if not all evenings and mornings. Mr Boyle will be living off-grid and the infrastructure (solar PV, compost toilet, W.E.T. system, etc.) will need maintaining. Mr Boyle will be contributing to the ELC's programme of education and hosting an annual school visit and open day. He will also be hosting an apprentice. All of these taken together make a strong case for there being a functional need for an agricultural workers dwelling.	This has been accepted for <u>Bee Organics</u> , <u>Coppergon</u> , <u>Sydling Brook</u> , <u>Trevalon Organics</u> , and <u>Five Penny Farm</u> . In deciding Five Penny the Inspector wrote "one of main features of this enterprise is the diversity of the crops grown, the animals on site, and the variety of items produced ... [this] makes the enterprise very labour intensive and give rise to the need for the physical presence of one or more of the appellants on the site throughout a long working day, frequently during the evenings, and sometimes at night" Inspector	Just relating Mr Boyle's proposals to <u>Five Penny</u> , although the latter is a larger holding (17 hectares between two families), each husband and wife team farms around 4.8 hectares of this, leaving the rest to woodland. This compares with Mr Boyle's approx 2 hectares of market garden, poultry, agroforestry and willow. <u>Five Penny</u> is, as Mr Boyle proposes, a small-scale ecological off-grid farm producing fresh produce and products processed on site largely to local markets.
Protection of seedlings (in the polytunnel and glasshouse)	The early season production of sensitive seedlings such as tomato, peppers, aubergines and cucumbers, is an intensive process requiring frequent attention. In January, when the seeds are sown they must be kept at a constant temperature of 18°C to ensure germination. Mr Boyle will be using a wood-burner to heat his polytunnel and it will sometimes be necessary to make a decision fairly late at night about whether or not to use heating, in order to conserve resources. In addition, the seedlings will require regular watering, and it will be necessary to attend to polytunnel ventilation according to weather conditions.	Inspectors have found that a) although environmental controls may break down infrequently, when they do, losses would be critical to the business (<u>Bee Organics</u>); and b) that both seedlings and environmental controls require regular, including night-time and early morning checks (<u>Sydling Brook and Trevalon Organics</u>). Deciding on <u>Rosebarn Nursery</u> the Inspector noted that polytunnels could be required to be opened at around 5 a.m., "as crops have been lost in the past due to the tunnels not being opened until 7 or 8 a.m."	As with the approved applications listed above and referred to on the left, successful production of seedlings is significant to the overall success of Mr Boyle's proposed business. The loss of any seedlings to a frost would delay planting, as replacements would have to be sown, and would thus cost the business in terms of delayed cropping. Early crops of local produce earn a significant premium and raising seedlings to transplant is crucial in keeping costs low and allowing the business to be competitive.

Continues....

⁶ Largely taken from the accompanying Agricultural Appraisal

Functional need	Reasoning	Where this has been accepted	How precedent relates to Mr Boyle's proposals
Weather related emergencies	Mr Boyle will need to be on-hand to close vents and doors in case of rain and in the event of high winds, cut the plastic to save the polytunnel frame from being bent. Such a decision can only be made by someone present on-site. Alternatively, a wind-break barrier made from bales, can sometimes protect the tunnel and save the plastic. The delay caused by having to travel to the site in the middle of a windy night to check for damage might mean that remedial action was taken too late.	This issue was recognised by inspectors in four cases. <u>Rosebarn Nursery</u> is particularly appropriate as it is also off-grid: "it is clear that judgements are required on site at short notice as to what action should be taken in the light of weather conditions at the site itself ... It would be very difficult if not impossible for appropriate and timely action to protect crops to be taken without someone being present on the site at most times, and without such action serious loss of crops could occur. Given the limited availability of power on the site, automatic warning systems would not provide a solution...Any snow damage to the polytunnels could lead to loss of growing plants if not addressed quickly" Inspector.	<u>Rosebarn Nursery</u> is 3.2ha compared with Mr Boyle's 2.5ha. Mr Boyle's enterprise mix is very similar to Rosebarn and both are organic and off-grid.
Early harvesting of fragile crops	In the summer months it is often necessary to harvest salad leaves early in the morning, when they are cool and full of moisture, to maximise quality and prevent wilting and resultant waste. At times between early April and early October, the heat can make it necessary to start harvesting as early as 6am.	From <u>Sydling Brook</u> "summer crops such as lettuce have to be harvested at cool times (early in the morning or late in the evening)" and "box packing .. Is usually done in the evenings when it is cool" Inspector.	This applies to Mr Boyle's proposed salad crops – which form part of his vegetable box proposal. Good shelf-life is significant to the success of this element of the business as leaf quality is key to retaining customers. Although Mr Boyle's proposed box scheme is very small scale, the scheme will provide a reliable income for the business.
Watering an open field area	Mr Boyle will be watering his field crops manually and this is best done either very late or early in the morning.	From <u>Sydling Brook</u> : "[watering] should also be done either very late or early in the morning" Inspector	This would apply to Mr Boyle's proposed half hectare of market garden. As above, although Mr Boyle's proposed box scheme is very small scale, the scheme will provide a reliable basic income for the business.

Continues....

Continued from above

Functional need	Reasoning	Where this has been accepted	How precedent relates to Mr Boyle's proposals
Pest control	Mr Boyle's proposed activities risk attack from pests as follows: outdoor crops are vulnerable to rabbits, deer, badgers and pigeons while his nut and willow plantations are vulnerable to squirrels and deer. His seedlings will also be vulnerable to slugs. Squirrels alone can cause devastating damage to both the trees and nuts and deer browsing can cause stems to bifurcate thus becoming less useful for craft use. The agricultural appraiser says in her appraisal that Mr. Boyle will need to be present in the evenings and early mornings in order to deter and/or remove pests.	Inspectors found that controlling pests creates a functional need to be on site in the cases of <u>Woodland Organics</u> , <u>Strong Orchard</u> and <u>Sydling Brook</u> .	As <u>Sydling Brook</u> , Mr Boyle will have polytunnel and open bed vegetables to protect from pests. Mr Boyle, like <u>Strong Orchard</u> , will have apple trees to protect from weevil and poultry to protect from predators. He will also have to protect his trees from squirrels and his willow from deer.
Preventing frost damage	In winter Mr Boyle's vegetable plants must be covered at sunset to protect them from frost and at sunrise this must be removed to allow daylight and moisture to get to the plants. During the fruit blossom time it is extremely important that trees are protected against late frosts. These may occur throughout April, and even into May, and if they damage blossom before flowers have been pollinated can devastate the crop. A precaution against such damage is to cover the tree with horticultural fleece last thing at night, and remove it first in the morning, after the frost has cleared, to allow insects access to the blossom. Covering crops and trees with fleece is, however, time consuming, and only necessary if it is known that a frost will definitely occur.	For <u>Woodland Organics</u> "the appellant loses a significant amount of his produce to unexpected night frosts. The appellant considers that his virtually continuous presence on site is required to ... take the necessary action to limit the harm caused by unexpected frosts". Also of relevance is that PPS7 specifically identifies preventing frost damage as part of functional need.	<u>Woodland Organics</u> is a 2.9ha holding producing organic field vegetables. The decision notice does not provide information on the size of the vegetable beds. Mr Boyle is proposing field vegetables on .5ha of the 2.5ha site and is proposing a hectare of agroforestry orchard which includes 208 fruit trees and bushes.
Poultry protection	Chickens and ducks must be let out in the morning and shut-in in the evening to protect them from foxes and badgers. In the summer, it can be as late as 9.30pm before they go to roost.	The protection of poultry, and other stock is acknowledged by the inspectors deciding <u>Woodland Organics</u> , and <u>Strong Orchard</u> .	Although chickens and ducks are not a specific enterprise on the holding they nevertheless provide an important role in organic slug and insect control, and subsistence food production. Such use of ducks and chickens is common place on organic holdings as a complement to vegetable production.

Continues....

Functional need	Reasoning	Where this has been accepted	How precedent relates to Mr Boyle's proposals
Security	While this alone is not a reason for on-site accommodation, for the business proposed the agricultural assessors believes that security is a legitimate concern. There are instances of animal theft or abuse when a site is not attended, as well as petty theft of equipment such as electric fence, batteries and posts and metal for scrap.	This was given as one of the grounds that established a functional need at <u>Rosebarn Nursery</u> .	<u>Rosebarn Nursery</u> is 3.2ha compared with Mr Boyle's 2.5ha. Mr Boyle's enterprise mix is very similar to Rosebarn and both are organic and off-grid.
Environmental	Although this is not usually discussed under functional need ecological agriculture has been raised in a couple of decisions that we are aware of (<u>Five Penny Farm</u> , and not listed above, <u>Brickhurst Farm</u> (APP/M2270/A/94/241023/P2) and <u>Hugletts Wood Farm</u> (APP/C1435/C/00/1050705)). The ecological nature of the farming methods have been highlighted by inspectors as being more labour intensive than conventional agriculture and as warranting an on-site presence because where permaculture is practiced, "a farmer should live on his land to be in tune with it and this need should not be judged only on produce and livestock" Inspector on <u>Brickhurst Farm</u> . Mr Boyle's proposed holding is that of highly sustainable, no fossil fuel ecological agriculture based on permaculture principles.	As mentioned left, the Inspector deciding on <u>Brickhurst Farm</u> , a permaculture holding producing free range hens for eggs and vegetables found that, "a farmer should live on his land to be in tune with it and this need should not be judged only on produce and livestock". In determining <u>Five Penny Farm</u> the Inspector found that "one of the main features of this enterprise is the ... sustainability of materials and energy, organic principles, integration of different elements of the enterprise, self-sufficiently ... All of these, and other factors, make the enterprise very labour intensive and give rise to a need for the physical presence of one or more of the appellants on the site throughout a long working day, frequently during the evenings and sometimes at night".	Mr Boyle's proposed holding relates to <u>Five Penny</u> , <u>Brickhurst</u> and <u>Hugletts Wood</u> in that they are all practicing ecological agriculture and making use of low impact materials, inputs and technologies.

APPENDIX 2: MAN HOURS AND “READILY AVAILABLE AT MOST TIMES”

The Council’s planning officers have queried whether the functional test could be met on a site of 2.5 hectares. As set out in Appendix 1, there are examples of planning permission being granted on holdings of similar and smaller sizes. However as each application is distinct we have calculated the number of man hours required by the proposed business activities and assessed the extent to which Mr Boyle would have to be readily available at most times.

Man hours

To calculate the number of man hours required for the proposed businesses we reviewed a number of reports providing either standard labour hours from, or analysis of, labour usage data from DEFRA’s Farm Business Survey namely DEFRA⁷, the University of Nottingham’s Rural Business Research Unit⁸ (RBR), and the University of Exeter’s Centre for Rural Policy Research (CRPR)⁹. When calculating the man hours using the three sources, we found that there could be great disparity in the final figures. In the DEFRA publication the standard labour requirements for each farming activity are based on aggregated figures from farms of all sizes whereas in RBR’s publication the author has provided standard labour requirements for large and medium farms. All sources note that there can be a large variation in labour use per hectare for groups, such as outdoor vegetables, that cover a variety of individual crops. It was also widely recognised that there is very limited data in relation to specialist horticultural crops. Indeed, CRPR produce the only publication which has prepared figures for polytunnel grown plants based on the total floor area of the polytunnels.

Furthermore, all sources are producing figures based on conventional production. The Organic Research Centre’s *Organic Farm Management Handbook*¹⁰ reports that organic holdings require 10-30% more labour than their conventional counterparts, in part because they include labour-

⁷ DEFRA (2010) Definitions of Terms used in Farm Business Management, DEFRA. Available from <http://archive.defra.gov.uk/foodfarm/farmmanage/advice/documents/def-of-terms.pdf>

⁸ Wilson (2009) *Analysis of labour usage data from the farm business survey from 2004/05 to 2007/08*, The University of Nottingham’s Rural Business Unit. Available from: <http://www.fbpartnership.co.uk/documents/Labour%20Use%20in%20Agriculture.pdf>

⁹ Farm Management Handbook (2005), Centre for Rural Policy Research, University of Exeter

¹⁰ Lampkin, Measures and Padel (Eds.) (2011) *Organic Farm Management Handbook*, Organic Research Centre

intensive, high-value enterprises such as field-scale vegetables. Research by Morison et al.'s¹¹ research states that organic farms in the UK provide 32% more jobs per farm as compared with conventional agriculture. In addition to this 32% labour increase in jobs, a further 64% increase in jobs was identified as a result of the organic farms that were involved in on-farm processing and direct marketing.

With the aforementioned in mind, we have used the following methodology to calculate man hours:

- To calculate the hours for raising seedlings for the market garden and hours spent growing polytunnel crops we have used the figures prepared by CRPR for polytunnel crops.
- The figures for outdoor vegetables are from Wilson (2009)¹² because the author provides average standard hours for both medium and large farms. We have used the figures for medium farms.
- In view of the findings reported in the Organic Farm Management Handbook, we then increased by 20% the figures for the polytunnel and greenhouse, and the outdoor vegetables.
- For the agroforestry element of the business – a new development in farming for which industry standards have not yet developed – we have taken Mr Boyle's approximations which have been confirmed in writing as correct by the leading agroforestry expert, Martin Crawford of the Agroforestry Research Institute (letter follows).
- We have used Mr Boyle's projections for time spent on: ducks and chickens; the willow business (planting, harvesting, etc.); marketing; delivery; and in food processing which are based on a handful of comparable farms that he has studied and visited.
- We have used the Nik Farm Management Pocket Book to calculate hours for maintenance, management of accounts, paperwork and so forth. These are recommended to be an additional 15% (maintenance, etc.) and 7.5% (paperwork).
- Finally, we have compared our calculations with three real-life examples, Longmeadow Organics, Pencoed Growers, and Spring Grove Market Garden.

¹¹ Morison J, Hine R and Pretty J (2005) 'Survey and Analysis of Labour on Organic Farms in the UK and Republic of Ireland' *International Journal of Agricultural Sustainability*, Vol. 3, No 1, pp 24-43

¹² Wilson (2009) *Analysis of labour usage data from the farm business survey from 2004/05 to 2007/08*, The University of Nottingham's Rural Business Unit. Available from:

<http://www.fbpartnership.co.uk/documents/Labour%20Use%20in%20Agriculture.pdf>

Calculation of Man Hours

Business component	Hours per ha or animal	Area (ha) or no. animals	Total hours
Outdoor vegetables	444	0.5	222
Polytunnel/greenhouse	40,000	0.01	273
<u>Subtotal:</u>			<u>495</u>
<i>Plus 20% for organic cultivation</i>			<i>594</i>
<u>Agroforestry</u>			<u>780</u>
Willow production for craft products			624
Poultry			364
Marketing			260
Packing and delivery ¹			103
Preparing juices and preserves			52
<u>Subtotal:</u>			<u>2,929</u>
Maintenance (15%)			439
Management (7.5%)			220
Total man hours:			3,587
Total man hours per annum = 270 days x 8 hours per day = 2,160 hours			
Total man years:			1.7

Notes:

Note 1: 2 hours twice a week to make and take vegetable boxes to collection point and to liaise with those collecting boxes

In other words, this proposal creates over the number of man hours per year required by policy. Further, it does not include a number of activities, including, but not limited to: hedgerow maintenance; compost making; preparing wood; willow product making; maintenance of W.E.T. system, compost toilet and solar water heating; sorting and packing; and pest control. The agricultural appraisal suggests that an additional 150 hours will be needed annually just to control squirrels through shooting and trapping.

Real-life examples

Pencoed Growers, a man and wife team working on a site with approximately 1 hectare in production plus polytunnels of around 1,000 m² (0.1ha) producing “seasonal vegetables, salads, herbs and cut flowers, all grown using sustainable rotations, natural inputs and respect for the soil and the environment”. The business requires their full time input and casual labour of two more workers for about 5 months. From this they turnover around £50,000. f3 – local food consultants (2008) *Riverside Market Garden Feasibility Study*, RCMA Social Enterprise Ltd.¹³

Longmeadow Farm, featured in our report *Small is Successful*¹⁴ is a 3.6 hectare Soil Association certified holding which has had – over the last thirty years – varying amounts under cultivation. It currently has 2.5 acres under cultivation from which it produces field vegetables, plus a small orchard and laying hens. Again a man and wife team work full time together in this case with one part-time employee. They have an annual turnover of £48,000. Maxey et al. (2011) *Small is Successful: Sustainable Livelihoods on Ten Acres or Less*, Ecological Land Co-operative Ltd.¹⁴

Spring Grove Market Garden is a 2.5 hectare Soil Association certified holding established in 2001 by a single woman and producing vegetable, flowers and herbs. Her turnover in 2007 was £70,800 which pays her and one other full-time worker. Maxey et al. (2011) *Small is Successful: Sustainable Livelihoods on Ten Acres or Less*, Ecological Land Co-operative Ltd.¹⁵

“Readily available at most times”

Appendix 1 looked at the various elements of the proposed business that establish a functional need to be on the site, relating this to comparable appeal decisions determined by the Planning Inspectorate. The table below sets out how often and when each of these elements requires Mr Boyle to be available. The table shows that Mr Boyle will need to be available every evening and early morning to attend the polytunnel and glasshouse, the chickens and ducks, the market garden, to see off pests and to harvest and pack fragile crops. He will also need to be available during night in inclement weather and to address power related emergencies. As set out in Appendix 1, should he not be able to deal with an emergency in time, they may lose the polytunnel, birds, seedlings and other crops, affecting the viability of his business.

¹³ Downloaded from: <http://www.riversidemarketgarden.co.uk/Market-Garden-feasibility.pdf>

¹⁴ Available from http://www.ecologicalland.coop/sites/ecologicalland.coop/files/Small_is_Successful.pdf

¹⁵ Available from http://www.ecologicalland.coop/sites/ecologicalland.coop/files/Small_is_Successful.pdf

Element	Attendance required
Polytunnel and glasshouse ventilation and temperature control	Regular checking throughout the day including evenings and early morning, during the vast majority of the year. In the case of emergencies, assumed at once or twice a year, Mr Boyle would also be needed during the night.
Polytunnel irrigation	Regular irrigation of sensitive seedlings, salads and other crops in the polytunnel and glasshouse. As noted in Appendix 1 this must be undertaken at sunrise and sunset in the summer months.
Pest control	Regular checking throughout the day including evenings and early morning, during the vast majority of the year.
Early harvesting and boxing of fragile crops	Early mornings through the warm summer months.
Chicken protection	Chickens and ducks must be let out in the morning and shut-in in the evening to protect them from foxes and badgers. In the summer, it can be as late as 9.30pm before they go to roost.
Security	Continuous
Preventing frost damage	During the fruit blossom time and between November – March, principally at night / very early morning.
Watering vegetable beds	April – September
Weather related emergencies	November - March
Irrigating polytunnel and glasshouse	Throughout the year early in the morning or late at night.



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10th November 2011

Comments on Agroforestry elements of Business Plan – Mark Boyle

I have examined the tree and shrub-based cropping elements of this plan in detail. In my view, the cropping figures and income from the fresh and processed produce are accurate and realistic, i.e. for:

- Fruit production from orchard trees and soft fruit
- Nut production from nut trees
- Apple juice production
- Willow production for craft products

The forward labour projections for the agroforestry aspects also appear realistic.

Having examined aspects of the site and soil analyses, I think that the agroforestry aspects of this plan are sound and believe that, given the work and dedication the plan requires, they should be realised.

Yours sincerely

Martin Crawford, Director

APPENDIX 3: SCOPE TO DIVERSIFY

In the most recent correspondence with the Council's Area Planning Officer, the ELC was told that "we are still concerned that this limited amount of land does not give the applicants much scope to diversify and have flexibility in developing the enterprise so in the submission ... you will need to address this". We very much hope the following addresses this concern:

1. The ELC has visited and studied existing farm businesses on much the same acreage and with businesses similar to that proposed by Mr Boyle. The financial viability of smallholdings in the UK was the focus of research we commissioned last year. The resulting publication *Small is Successful: Creating Sustainable Livelihoods on Ten Acres or Less* (submitted with this application) profiled eight case study farms on ten acres or less¹⁶. The report found that small ecological farms derived their income through intensive and diverse cropping, by selecting high value crops for production and/or through adding value on site and marketing directly to their customers. They stabilised their income by having a range of income streams in order to spread risk.

The report also found that growing, harvesting and processing quality salad leaves, soft fruit, seedlings and mushrooms all requires careful attention to detail. This lends itself to small acreages where the growers can focus more attention per unit area of land to maximise its productivity, produce quality and farm profitability. With forest farming and specialist horticulture, it is not so much the size of the holding which dictates income but the intensity and quality of the production.

Forest farming (agroforestry¹⁷) is particularly labour intensive and is especially suited to labour intensive family farming¹⁸. The Organic Research Centre reports that agroforestry systems have higher productivity compared to conventional monocultural systems¹⁹.

¹⁶ The report was selected by the Research Council UK to feature in their publication *Big Ideas for the Future: UK research that will have a profound effect on our future*. The research was also circulated by organisations representing tens of thousands of members, including the Soil Association, Sustain – the Alliance for Food and Farming and the Transition Network.

¹⁷ According to the Organic Research Centre, agroforestry is "a land use system that integrates trees and shrubs with crops and/or livestock production, builds on the idea of ecological design to optimise beneficial interactions between the woody and other components".

¹⁸ M Crawford (2001), *Forest Farming*, Agroforestry Research Trust. Available at:

<http://www.agroforestry.co.uk/forfarm.html>

¹⁹ <http://www.sustainable-agroforestry.org/>

2. Like the successful growers profiled in our publication, Mr Boyle will manage every element of his business from growing and value addition through to marketing and sales. As such he will have the flexibility, adaptability and scope to cater to his local customers and to niche markets. This may mean changing the crops or varieties he grows, the way in which they are marketed (box scheme, farmers' market, CSA, etc.) or changing the type and/or quantity of his processed products.
3. Mr Boyle has built in diversity as a contingency within his enterprise. He will have several income streams and should one fail, he can increase the others. He has selected farming activities that complement each other: while the market garden and willow business brings in income in the first years, the plants and trees established in the first year start to bring in increasing amounts of income in the later years (Year 5 onwards). It is worth highlighting that PPS7 Annex provides the option of applying for a temporary consent in order for the proposed business to establish viability and requires, in order for this element of criteria to be satisfied simply that there is "evidence that the proposed enterprise has been planned on a sound financial basis".
4. We have submitted, in Appendix 1 to this Statement, a list of nine farms that received temporary consent, four of which are smaller than that proposed by Mr Boyle, and one is pretty much the same size (Spring Grove). Of these five, two still have their initial temporary consent (Bee Organics, Kimberley Nurseries) while the other three have been able to show viability, after the initial temporary period, and were given permanent permission (Staverton Bridge, Ourganics, and Spring Grove).
5. The ELC will work with tenants to provide ongoing business support to members for little or no cost. We will work with agricultural advisors to identify opportunities, e.g. the production and / or processing of specific high-value herbs or other specialist crops or valued-added products. We will also look at working with a low-carbon certifier so that our members can add value to their produce through low-carbon branding.
6. Finally, by being clustered with two other sympathetic smallholders Mr Boyle will be able to share tools, equipment, and costs. The smallholders will be able to sell each other's produce and be able to, if and when they want, develop shared products and/or branding. This will increase their options in terms of: produce they consider for

cultivating due to the access they will have to skills and the opportunities for reducing costs; and marketing strategies.

APPENDIX 4: REASONS FOR REQUESTING 5-YEAR TEMPORARY PERMISSION

We would like the Council to consider granting a five-year temporary permission. This is a departure from the recommended three-year permission. The reasons for this departure are:

1. The three year provision was created with conventional farms in mind. In general it takes considerably more time to establish a mixed ecological holding than a farm business developed on fewer outputs (milk, pigs, etc.) and which makes use of artificial inputs and machinery. Indeed, the Welsh Assembly, in the *Technical Advice Note 6: Planning for Sustainable Rural Communities* recommends that new sustainable farm businesses are granted, in the first instance, a five year temporary permission.
2. Mr Boyle will be establishing new orchard and an agroforestry system which will only see significant income from Year 4 or 5.
3. Mr Boyle will be building his farm business up from a bare field site rather than adding an additional farm business to an existing one. This will require more time and effort.
4. The Ecological Land Co-operative is focusing on providing affordable smallholdings to help those enter the sector that otherwise would not be able to afford to do so. In the course of our research for our publication *Small is Successful* we found that in order to avoid incurring debt, successful ecological farms followed a slow development trajectory, investing in the growth of the business as and when they could.
5. The granting of a five year permission has a number of precedents. E.g. it has been granted to Ourganics (1/W/04/000790), Tinkers Bubble (04/01235/COU) and Stewards Wood (APP/J9497/C/08/2083419-28, APP/J9497/C/08/2083429-38 and APP/J9497/A/08/2072884). Fivepenny Farm received a four year permission (APP/F1230/C/04/1162420,21,22,25 and APP/F1230/C/04/1159852).