PLANNING POLICY AND LOW IMPACT DEVELOPMENTS

What are the planning barriers to low impact developments in rural areas in Britain and how might they be overcome?



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PREFACE

Low Impact Developments (LIDs) have been found to be good examples of sustainable development (CCW, 2002) and yet despite the statement that "sustainable development is the core principle underpinning planning" (PPS1, p.2), LIDs are still not addressed at a national level in England or Wales and they are only acknowledged by very few local authorities.

The thesis examines this in the context of the British countryside. It argues that the current system makes it exceptionally difficult for any form of land-based development to exist other than large-scale industrial agriculture. It argues that large scale industrial agriculture, which dominates the British countryside, is highly unsustainable and examples of sustainable rural development are urgently needed. Low impact development is presented as a potential form of sustainable development in rural areas. Moreover, LID looks at sustainability in a holistic manner to include all aspects of living and working. As such, it proves to be exceptional to all other forms of development in existence in Britain.

The focus of the study is a case study of the Pembrokeshire Low Impact Development Policy (Policy 52) and examines how it is working in practice both from a planners and applicants' point of view. The study looks at this policy as a potential template for a national policy, along with other potential directions for sustainable rural development. The thesis concludes that planning policy needs to change at a national level to allow and encourage genuine sustainable livelihoods and dwellings in rural areas.

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This is dedicated above all to the British countryside and to all those who envisage and work towards a return to healthier natural habitats for all species.

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All interviews have been transcribed and are included on a CD. Please note that the interviews are confidential and the CDs may only be used by tutors at the Centre for Alternative Technology.

1 INTRODUCTION

Aim

1.1 The purpose of this thesis is to investigate planning policies and how they relate to low impact developments in rural areas in Britain. The key aims of the study are to discover whether Low impact Developments (LIDs) should be addressed in national planning policies and whether the Pembrokeshire Low Impact Development Policy is a useful model to be adopted on a national basis.

Low impact developments (LIDs): definitions

- 1.2 The term 'low impact development' was originally coined by Simon Fairlie:
 - "A low impact development is one that, through its low negative environmental impact, either enhances or does not significantly diminish environmental quality" (Fairlie, 1996, xiii).
- 1.3 Fairlie produced 9 criteria for LID, which were then updated to 15 criteria by Chapter 7 of The Land is Ours (Chapter 7, 1999). Both these sets of criteria are listed in the appendices. Research by Fairlie, Chapter 7, and a study by UWE and Land Use consultants form the main basis for understanding LIDs in rural areas in the UK to date.
- 1.4 The term 'low impact development' can also be applied to some developments in urban areas. This study does not address these and focuses solely on low impact developments in rural areas in Britain.

Planning policy and low impact developments

- 1.5 Low impact developments (LIDs) fulfil many of the objectives of sustainable development set out in UK Planning Policy Statements and Guidance, yet they are not recognised in national planning policy in England or Wales. Due to this, in many cases LIDs are judged as agricultural dwellings and are not judged according to the unique characteristics inherent to LIDs.
- 1.6 A report by Baker Associates (2004) makes the following points:
 - "Whether or not the number of credible LID applications is very low, the issue of LID does become very interesting for the planning system when the links that the concept has with several very important agendas begin to be explored. There are many other issues arising in the way that we plan for rural areas that the debate about LID may throw some light on, and there is a concern for the planning system generally to help bring about greater sustainability, which LID is said to do" (Baker Associates, 2004, p.6).
- 1.7 Some local authorities do now recognise LIDs as a separate form of land-based development and have separate policies that relate to them. The most notable of these is the Pembrokeshire Low Impact Development Policy (Policy 52). This policy was brought into practice in 2006 and was based on studies by Fairlie, Chapter 7, the CCW report and a report by Baker Associates. Pembrokeshire's low impact development policy and the criteria by

which it judges low impact developments in rural areas will be examined in detail later in this study. This study aims to examine Pembrokeshire's LID policy, determine whether its judgement of LIDs is justified and ascertain whether this is a model to be adopted on a broader basis.

Method

- 1.8 This study is based on:
 - Analysis of the wider context: Global issues and issues pertinent to the sustainability of the British countryside. The relationship of low impact developments to these is examined.
 - A review of planning policy and its relationship to low impact developments to date.
 - Practical qualitative research of the Pembrokeshire Low Impact Development Policy.

2 CONTEXT

Environmental concerns and recognition of need for sustainable development:

- 2.1 Climate change is probably the environmental concern that currently receives greatest focus. However, it is by no means the only concern. Biodiversity loss; contamination of land, soil and air; and depletion of minerals and the natural environment are also serious issues that need to be addressed.
- 2.2 The term 'sustainable development' has become common in many policies and reports. The UK government sustainable development unit makes the following points:

"The past 20 years have seen a growing realisation that the current model of development is unsustainable. In other words, we are living beyond our means. From the loss of biodiversity with the felling of rainforests or over fishing to the negative effect our consumption patterns are having on the environment and the climate. Our way of life is placing an increasing burden on the planet.

The increasing stress we put on resources and environmental systems such as water, land and air cannot go on forever. Especially as the world's population continues to increase and we already see a world where over a billion people live on less than a dollar a day." (UK Govt. Sustainable Development Unit, 2007).

Sustainable Development: problems of definition

- 2.3 There is no set definition for sustainable development and some even argue that the term is an oxymoron: that there can be no development that is sustainable (Hardin, 1993). This perspective is usually due to associating development with economic growth. Development and economic growth are not necessarily the same. Development can be interpreted in a variety of ways. For example, it could mean a general improvement in the quality of life or greater social stability. Meffe and Carroll (1997) argue that development is a qualitative change, whilst growth is a quantitative change. Others, however, would argue that development is the exploitation of natural entities for monetary gain. Using the latter definition of development would make the term "sustainable development" an oxymoron as Hardin (1993) points out. As can be seen from the paragraph below, this oxymoron is precisely what the UK government sustainable development principles illustrate.
- 2.4 The UK national planning policy PPS7 states that key principles for sustainable development should be based on:
 - "- social inclusion, recognising the needs of everyone;
 - Effective protection and enhancement of the environment;
 - Prudent use of natural resources; and
 - maintaining high and stable levels of economic growth and employment." (PPS7, 2004, p.7)

- 2.5 Economic growth is incompatible with sustainability and incompatible with the first 3 objectives set out in these principles for sustainable development. Economic growth cannot continue forever due to the obvious limitation that the world is finite. In addition, economic growth occurs due to the exploitation of the environment, species or cheap labour. Hardin points out: "The idea of perpetual growth is embraced with religious fervour by mainstream economists and other worshipers of 'Progress'.....Exponential growth needs to be seen as a severely time-limited process, for which costs must be paid. Growth is ultimately limited by the environment, a truth that ecologists encapsulate in the concept of 'carrying capacity'" (Hardin, 1994, p.73).
- 2.6 The most commonly accepted definition for sustainable development is the Brundtland definition: 'development which meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland Commission, 1987, chapter 2, paragraph 1). Barton points out that this definition is anthropocentric, putting human well-being first (Barton, 2005). There are also ecocentric definitions, which put the global ecology first (Barton, 2005). Although human well-being is clearly dependent on the health of the planet's ecosystems, anthropocentric and ecocentric views can contrast and differ greatly. In addition, there can be great variation over the definition of needs.
- 2.7 The problem of defining sustainable development has potentially hindered LID from being implemented and accepted on a wider scale within the planning system, as is clear from the points and example raised by Chapter 7 in 1999:
 - 1.1 The government has made plain its commitment to sustainability, and sustainability is regarded as a material consideration in planning decisions. However, there is very little guidance on what actually constitutes a sustainable form of development in the countryside. Planning Policy Guidances 1 and 7 list a number of broad "objectives", such as "to meet economic and social needs" and "to maintain or enhance the character of the countryside". But neither of these documents nor any other government guidance give any yardstick by which the sustainability or the environmental impacts of projects which provide people with livelihoods and homes in the countryside can be assessed.
 - 1.2 Planners, and other professionals involved with rural development may therefore find it difficult to assess the merits of a project which claims to be "sustainable" or "low-impact", or find grounds for refusal of one they suspect is not. For example, the reasoned justification for policy HG11 on "Low Impact Dwelling Sites" in the emerging South Somerset Local Plans states, "The District Council will seek to establish criteria which can be used to evaluate the success or otherwise of low-impact dwelling sites". The council's search eventually led to the High Court. In an appeal against a South Somerset DC decision concerning a low-impact development, Deputy Judge Nigel McLeod QC unhelpfully concluded that "the concept of 'sustainability' is comparatively new to the environment field, is protean in meaning and extremely difficult to define in any precise sense." (Chapter 7, 1999, paragraphs 1.1, 1.2)
- 2.8 Although the above was written 9 years ago, definitions of sustainable development are still vague and open to interpretation. As Collingworth and Nadin (2006) point out, "There is a view that the word (sustainability) has been so badly abused and misused that it has lost any useful meaning" (p.250). They also mention that public awareness and understanding of the concept remains low (Collingworth, Nadin, 2006). On the other hand, as Collingworth and Nadin (2006, p. 250) point out, "Debate around the sustainability concept ensures that some

- of the key conflicts and contradictions in public policy (and planning practice) are at least exposed and perhaps addressed."
- 2.9 In the section below and throughout this paper, the contradictions within public policy and planning practice will be addressed with regards to sustainability in the countryside, rural livelihoods and low impact developments. As Baker Associates (2004, p.6) pointed out, "There are many issues arising in the way we plan for rural areas that the debate about LID may throw some light on, and there is a concern for the planning system generally to bring about greater sustainability, which LID is said to do". This echoes the words of the CCW report (2002): "LID scores positively against three parameters of sustainability environment, community and economy but we face a paradox whereby development of high intrinsic sustainability is being rejected by a planning system that is centrally concerned with sustainable development (p.83)....Manifestly environmentally sustainable development is being opposed by a planning system which lacks the means to appreciate it and properly control it" (p.84).

SUSTAINABILITY AND THE COUNTRYSIDE:

2.10 It is important to examine current problems in the British countryside because the original purpose of the UK planning system was to protect the countryside. Key issues that have an impact on sustainability of the British countryside will be presented below. These will be examined with regards to the key principles as stated by UK national planning policy. Criteria for Low impact Developments that address these issues will also be presented. The criteria used in this instance will be the criteria suggested by Chapter 7 (1999). Chapter 7 is "a UK organization which campaigns to provide access to land for all households through environmentally sound planning" (Chapter 7). The 15 criteria of Chapter 7 have been chosen as they have been the basis for developing LID policies in both Milton Keynes and Pembrokeshire.

Transport

- 2.11 The planning policy guidance for transport in the UK (PPG13) states that its objectives are to:
 - a. Promote more sustainable transport choices for both people and for moving freight;
 - b. Promote accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling, and
 - c. Reduce the need to travel, especially by car.

(PPG13, 2001, paragraph 1.4)

- 2.12 With regards to rural areas, these objectives towards more sustainable forms of transport and reduction of transport, especially by car, have not been met. The per capita carbon footprint is slightly higher in rural areas (SOCR, 2007). For example, the CO₂ emissions for 2001 ranged from 12.1 to 12.3 tonnes per capita in rural areas, compared with 11.6 to 11.9 tonnes per capita in urban areas (SOCR, 2007). The main difference between the footprint of urban and rural areas is due to transport. Between 72 and 88% of households in hamlets and villages own a car and it is not uncommon for even the lowest income households to run 2 or more cars (SOCR, 2007).
- 2.13 Increased car use is probably due to: -lack of public transport

- -lack of local services-lack of local employment
- 2.14 This can become a vicious circle. The decreases in local services and public transport make it almost impossible to choose not to drive a car in rural areas. As numbers of car drivers increase, public transport becomes less of an economically viable option. This could become an increasingly difficult problem as fuel prices increase and if predictions of fuel shortages prove to be correct. In addition, these are practices that run counter to policies advising reductions in carbon emissions.
- 2.15 Criteria for LIDs that address transport:
 - -The project has prepared a strategy for the minimization of motor vehicle use.

(Chapter 7, 1999, section II)

Shortage of affordable housing and impacts on local community/economy

- "All countries should, as appropriate, support the shelter efforts of the urban and rural poor, the unemployed and the no-income group by adopting and/or adapting existing codes and regulations, to facilitate their access to land, finance and low-cost building materials" (Agenda 21, chapter 7, paragraph 7.9).
- 2.17 There is a lack of affordable housing in rural areas in the UK: "The lack of affordable housing for people who live and work in rural communities has been a serious problem for many years." (SOCR, 2007, p.33)
- 2.18 This is likely to be one of the reasons why there is an outflow of young people (aged 15-30) from rural to urban areas and an inflow of older people from urban areas (SOCR, 2007).
- 2.19 A lack of affordable rural housing does not necessarily equate to a lack of environmental sustainability. However, the migration of young people and families from rural to urban areas can disrupt the balance in communities and affects the viability of local businesses and essential services- e.g. schools, post offices (Bridges et al, 2006). It could be argued that once this trend has started, the pattern becomes difficult to reverse. This may ultimately lead to increased transport of residents as they seek essential services and social life elsewhere.
- 2.20 A study by Shelter (2004) revealed that the shortage of affordable housing in rural areas has been exacerbated by competing demands on the market from retired households and second home purchasers (Shelter, 2004). Shelter (2004, p.7) states that "second homes can have a detrimental impact on the local community: depriving them of a scarce housing resource; inflating local house prices; and contributing to under-use or limited seasonal-use of vital local services. It has also been identified that there is a trend of richer commuters choosing to live in the rural areas surrounding their urban place of employment (Bridges et al, 2006).
- 2.21 Criteria for LIDs that address affordable housing and local economy and community:
 - -The project provides affordable access to land and/or housing to people in need.
 - -The project can demonstrate how it will be integrated into the local economy and community.

(Chapter 7, 1999, section II)

Agricultural practices

- 2.22 Focus is paid to agricultural practices because agricultural land accounts for approximately 70% of land in the UK (DEFRA, 2002) and is often the land where LID applicants would choose to live. It is therefore relevant to consider current agricultural practices and how they relate to sustainability, particularly compared to intentions of LIDs.
- 2.23 Key areas in which agriculture and food production are currently unsustainable:
 - Agriculture is heavily dependent on fossil fuels- for machines, pesticides, fertilisers, and transport of its goods. The unsustainability of these practices has already been identified by a number of authors (e.g. Pfeiffer, 2006). Pesticide use has increased steadily since 2000 (SOCR, 2007).
 - The system is inefficient: Estimates suggest that it takes 10 tonnes of raw material to produce 1 tonne of processed food (DEFRA, 2002). "The remaining 90% is discarded as waste, with packaging waste including 12 billion plastic carrier bags and 29 billion food and drink cans every year in the UK" (DEFRA, 2002, p.11).
 - DEFRA also states that the environmental costs outweigh the environmental benefits: in studies the benefits are estimated in the range of £600-900 million per year, whilst the negative impacts have been estimated to be between £1 −1.5 billion per year (DEFRA, 2002).
 - The vast majority of agriculture in the UK is made up of large farms (16% of the largest farms account for 58% of the total farmed land). Yet small farms with integrated farming systems can be 200-1000% more productive than large scale monocultures (La Trobe, 2002).
 - In the UK, just over 1% of agricultural land is farmed organically (La Trobe, 2002). Yet, there is growing demand for organic produce (La Trobe, 2002). The UK currently imports 70% of the organic produce consumed (DEFRA, 2002), which undermines the sustainability of organic practices. DEFRA have identified, however, that "many wish to buy British or buy local" (DEFRA, 2002).
 - In an assessment of 23 Biodiversity Action Plan (BAP) species habitats from 2002-2005, 4 out of 5 habitats in deterioration were in the agricultural sector (SOCR, 2007).
 - Industrial agriculture produces a huge amount of waste: "One of the main sources of waste generated within rural areas is from agricultural activities, but until recently agricultural wastes were not controlled by government regulations and mostly disposed of on-farm. A recent survey has indicated significant quantities and types of agricultural waste ranging from used oils and tyres, to plastic fertiliser bags and empty pesticide containers. Total agricultural waste generated in England in 2003 amounted to 46.7 million tonnes" (SOCR, 2007).
- 2.24 Between 1983 and 2001, the total number of people employed by farming has fallen by 45% (DEFRA, 2002). The loss of a link to land-based activities can mean that many areas of the British countryside are losing much of their rural character.

- 2.25 La Trobe (2002) suggests that a re-localisation of food production can have several benefits:
 - Direct relationships between producers and consumers encourage education of food production and enable consumers to have some influence over production practices.
 - Transport is less, which reduces fossil fuel use and associated pollution.
 - There is increased availability of fresh food.
 - There may be significant reductions in energy due to less processing, storage and packaging.
 - A sense of community can be created.
- 2.26 Although it is beyond the scope of this study, it is worth mentioning that current trends in agriculture and food production are not sustainable according to the key principles set out in Planning Policy Statements. Using 10 tonnes of raw material to produce 1 tonne of processed food is not an example of prudent use of resources. Neither is it sustainable to have a food system dependent on fossil fuels at a time when cutting CO₂ emissions and predictions of future fuel shortages are key issues. Policies that address agriculture need to consider use of resources and minimise transport in food production. Small-scale, mixed farms that address issues of environmental sustainability and lead to re-localisation of food production may help to boost British farming and local rural economies, whilst also enhancing the environment.
- 2.27 Low impact developments are unlikely to play a large role in the sustainability of food production. However, those that do plan to sell food to local markets can add to the local rural economy. In addition, they are by their very definition, of low environmental impact and thus any cultivation practices are of either low environmental impact or beneficial to the environment. Some of these practices may add to biodiversity of the area or aid in education of sustainable cultivation practices. In the 5 case studies examined in the CCW report, the LIDs all performed well for habitat management and biodiversity enhancement with Tir Penrhos Isaf, a permaculture settlement, performing particularly well (CCW report, 2002). Tir Pehrhos Isaf also run courses and allow visits, thus encouraging an interest in permaculture principles and adding to education in this field.
- 2.28 PPS7 states that it aims to promote "sustainable development that respects and, where possible, enhances local distinctiveness and the intrinsic qualities of the countryside (PPS 7, 2004, p.6). Ensuring that LIDs are land-based can help to maintain the rural character of the countryside and bring new life and diversification to agricultural land in a sustainable manner.
- 2.29 Criteria for LIDs that address agriculture and environmental sustainability:
 - -Agricultural, forestry and similar land-based activities are carried out according to sustainable principles. Preference will be given to projects which conform to registered organic standards, sustainable forestry or recognized permaculture principles.
 - -The project has strategies and programmes for the ecological management of the site, including:
 - a. The sustainable management and improvement of soil structure
 - b. The conservation and, where appropriate, the enhancement of semi-natural habitat, taking into account biodiversity, indigenous species and wildlife corridors

- c. The efficient use and reuse of water, as well as increasing the water holding capacity of this site
- d. The planting of trees and hedges, particularly in areas where the tree coverage is less than 20%. (Chapter 7, 1999, section II)

SUSTAINABILITY AND DEVELOPMENT

Reduction of energy consumption and water usage in homes:

- 2.30 The DCLG report "Homes for the future: more affordable more sustainable" states: "New housing needs to be much more sustainable for the future. We need a revolution in the way we build, design and power our homes. A quarter of the UK's current carbon emissions (around 150 million tonnes of carbon dioxide each year) arise from how we heat, light and run our homes. We want to increase protection of the environment by cutting carbon emissions and we want all new homes to be zero carbon from 2016....We will also set new minimum standards for water use in new homes cutting average water use by almost 20%" (DCLG, 2007, p.9)
- 2.31 Criteria for LIDs that address energy reduction and water usage in homes:
 - -The project has a strategy for energy conservation and the reduction, over time, of dependence on non-renewable energy sources to a practical minimum.
 - -The project aims over time for the autonomous provision of water, energy and sewage disposal and where it is not already connected to the utilities, shall make no demands upon the existing infrastructure.

(Chapter 7, 1999, section II)

- 2.32 Criteria for LIDs also address the materials that homes are made from as many materials can have high negative environmental impact and, if they are not locally sourced, increased impact due to transport distances.
 - -New buildings are constructed from materials with low embodied energy and environmental impact, and preferably from locally sourced materials, unless environmental considerations or the use of reclaimed materials determine otherwise. Reuse and conversion of existing buildings on the site is carried out as far as practicable in conformity with these criteria.

(Chapter 7, 1999, section II)

Waste management

2.33 PPS10 on waste management states:

"The overall objective of Government policy on waste, as set out in the strategy for sustainable development, is to protect human health and the environment by producing less waste and by using it as a resource wherever possible" (PPS10, 2005, p. 5).

- 2.34 Criteria for LIDs that address waste management:
 - -The project plans to minimize the creation of waste and to reuse and recycle as much as possible on site.

(Chapter 7, 1999, section II).

3 LOW IMPACT DEVELOPMENT AND PLANNING POLICY

3.1 "In planning for housing in rural areas, local planning authorities should strictly control new house building (including single dwellings) in the countryside, away from established settlements or from areas allocated for housing in development plans." (PPS 7, p.10)

This is one of the principle barriers preventing smallholders and LID applicants from having dwellings at their place of work in the countryside. It will be pointed out in this chapter that the real needs of smallholders or LID applicants are not recognised in planning policy and that the exceptions to this policy for agricultural and forestry dwellings are based on arbitrary definitions of need.

National Planning Policies and LID in Britain

- 3.2 In England, Planning Policy Statement 7 (PPS7) provides guidance for regional and local planning authorities on development in rural areas. In Wales, the relevant guidance for development in rural areas is Technical Advice Note 6 (TAN 6).
- 3.3 Scotland addresses low impact developments in SPP 3 (2003) in the section on housing in rural areas. Paragraphs 50, 52, 53 are relevant to LID, with paragraph 53 more specifically addressing LID:
 - "NPPG 15 suggests that low-impact forms of housing development can provide both economic and environmental benefits. Proposals for sustainable residential development using innovative, energy-efficient technologies with particularly low impacts on the environment may be acceptable at locations where conventional buildings would not. The control of innovative low impact uses through the planning system is best achieved by a planled approach. Proposals should be carefully assessed against specified sustainable development criteria and the wider policy objectives of the development plan." (SPP3, 2003, paragraph 53)
- 3.4 SPP 3 is currently being revised, however, and there is no mention of Low Impact Development in SPP 15, which is the guidance for rural development that replaced NPPG 15.
- 3.5 TAN 6 is currently under review (Dyson, 2007). Although there have been suggestions to include Low Impact Developments in TAN 6 and although the Welsh Assembly did fund studies into LID, LID has not as yet been incorporated into national policy.
- 3.6 As there is no national guidance on Low Impact Development in England and Wales, LIDs in rural areas are generally judged as agricultural or forestry dwellings and not by the unique characteristics inherent to LIDs. The relevant national guidance on agricultural and forestry dwellings can be found in Annex A of PPS 7 and within TAN 6, for England and Wales respectively.
- 3.7 The relevant parts of Annex A and TAN 6 can be found in the Appendices. Both Annex A and TAN 6 state that for any temporary or permanent dwelling to exist on agricultural or forestry

land, a functional test must be applied. The functional test is defined exactly the same, word for word, in both Annex A and TAN 6:

"A functional test is necessary to establish whether it is essential for the proper functioning of the enterprise for one or more workers to be readily available at most times. Such a requirement might arise, for example, if workers are needed to be on hand day and night:
(i) in case animals or agricultural processes require essential care at short notice;
(ii) to deal quickly with emergencies that could otherwise cause serious loss of crops or products, for example, by frost damage or the failure of automatic systems."

(PPS7, p.21; TAN6, paragraph 42)

- As Simon Fairlie points out the reasons given in PPS 7 and TAN 6 for functional need are not the real reasons why smallholders need to live on the land where they work: "That is actually not the main reason why most people need to live on the land. It can be an issue, but the main reason is fitting in a domestic life with a number of sporadic activities that occur throughout a very long day. You don't want to be whizzing backwards and forwards. That is without doubt the main reason why smallholders, of the type we deal with, need to live on their land. They don't have a 9 to 5 job like a tractor driver does normally. Their work is their life and the whole thing is all mixed up. Getting that across to planners is so difficult" (Fairlie, 2008).
- 3.9 Fairlie's point that "their work is their life and the whole thing is all mixed up" could be taken even further. To understand the natural world and environment and to work with it requires time and immersion into it. This is particularly true of land that thrives on a diversity of interconnections, which is often the land that LID or permaculture practitioners hope to live in or help bring about. The following text shows some of the reasons Ben Law gives for needing to live where he works:

"Other key reasons for residing in the woodland are the importance of gaining an intimate knowledge of the woodland and its flora and fauna. At Prickly Nut Wood, I know where the deer rest up during the day, and by being there I am able to take an active part in ensuring protection of coppice regrowth from browsing deer. I add value to produce in the cants of freshly cut coppice, keeping up activity and leaving human scent while the young shoots of coppice regrowth are at their most vulnerable from deer grazing. I know the badger sets and their night time pathways. I know where the early purple orchid, Orchis mascula, appears and I am careful to avoid working in that area from March to June. This knowledge is fundamental to all forest dwellers, and is often absent in modern forestry.

The produce from Prickly Nut Wood is diverse. Non-timber products as well as the coppice wood products are harvested throughout the year. The birches and maples are tapped for their saps to make wine. The fruit trees are pruned and a vigilant watch is kept during early spring to ensure fruit buds are safe from bullfinch attack. The harvesting of fruit, nuts, berries and leaves are regular summer and autumn activities. I keep bees, and when they swarm, I hear them and can follow; I can catch the swarms and increase my number of colonies because I am living there, living on and from the land. I am there to harvest fungi, which can be spoilt for the palate if left too long unobserved, and the regular tending of my raised

- vegetable beds are all part of a management system designed by the forest dweller" (Law, 2007, p.29).
- 3.10 With monoculture (the vast majority of agriculture) there are very few processes and connections to see, learn from and look after. To judge LID applications by conventional agricultural needs, therefore, is absurd and shows little understanding or appreciation of what LID is trying to achieve.
- 3.11 Furthermore, the fact that smallholders cannot live where they work leads to practices that are inherently unsustainable:
 - 1. The inability to live at the same place as work leads to the obvious issue of transport. As Ben Law (2007, p.27) points out: "To travel to and from the work place is an unnecessary and polluting use of energy. Traditionally, those working continuously on the land, whether farmers or foresters have resided where they work, to look after the land and pursue the activities carried out on it."
 - 2. Prices for homes in existing settlements are often too expensive for many small farm workers. Only large farms with intensive practices can afford such prices. Thus the system as it currently stands only really supports large farms. The monetary wealth of such large farms with intensive practices has 'hidden' costs. As mentioned in the previous chapter, conventional agricultural practices are only possible given the availability of cheap fossil fuels and damage the environment in a number of ways for example, by reducing biodiversity, contaminating land, water and air.
- 3.12 Another test applied to agricultural or forestry dwellings is a financial test, to check economic viability. PPS 7, Annex A and TAN 6 state:

"New permanent accommodation cannot be justified on agricultural grounds unless the farming enterprise is economically viable. A financial test is necessary for this purpose, and to provide evidence of the size of dwelling which the unit can sustain" (PPS 7, p.21; TAN 6, paragraph 46).

PPS 7, Annex A continues with:

"In applying this test, authorities should take a realistic approach to the level of profitability, taking account of the nature of the enterprise concerned. Some enterprises which aim to operate broadly on a subsistence basis, but which nonetheless provide wider benefits (e.g. in managing attractive landscapes or wildlife habitats), can be sustained on relatively low financial returns" (PPS 7, Annex A, p.21).

- 3.13 In PPS 7, therefore, it is at least acknowledged that some projects are not operated for profit but for subsistence. This is still not acknowledged in TAN 6.
- 3.14 The report by UWE and LUC (2002, p.80) points out that these tests were believed necessary due to abuse of exceptions policies for development in the countryside: "These tests have

been developed to address the considerable abuse of this area of policy by those seeking valuable new houses in the open countryside."

- 3.15 An area that is agricultural land or forestry land needs to be prevented from being used for practices that are not in keeping with rural life. However, this should not mean that those genuinely seeking to live small-scale sustainable rural lifestyles are adversely affected, as is currently the case.
- 3.16 It is important to make it clear why LID applicants and many smallholders need to live in the countryside because this has not been understood by the planning system. Their livelihoods are land-based and therefore require a substantial amount of land for them to survive. Due to their small-scale or low impact cultivation techniques, they will not achieve high profits and therefore are unlikely to be able to afford the high prices of land in existing settlements or even on the edges of existing settlements. It could also be argued that if smallholders or LID applicants were pushed into higher-priced areas, it may lead to unsustainable practices such as having to look for extra work elsewhere or compromising on conservation or sustainable cultivation techniques. Furthermore, their activities are closely tied to the land and require them to be present for a number of reasons, such that travelling to and fro to work prevents them carrying out their work in any proper manner and can run counter to sustainable transport objectives.
- 3.17 To date, national planning policies, especially in England and Wales, have failed these people. Thus the British countryside is dominated by large scale industrial agriculture, which is inherently unsustainable (Heinberg, 2007; Pfeiffer, 2006; Pretty, 2002; Whitefield, 2007).

Local Planning policies

3.18 The following local authorities have policies relating to LID:

Pembrokeshire County Council and Pembrokeshire Coast National Park Authority Milton Keynes Oxford City Council South Somerset

The above policies have been included in the appendices.

- 3.19 Boyle (2007) and the CCW report (2002) have considered planning policies for LIDs and both include Torridge (Devon) as having a policy that relates to LID. Although there is perhaps scope for LID within Policy ECD5, it cannot really be described as a low impact policy.
- 3.20 Boyle (2007) developed a matrix by which to judge the local LID policies against LID criteria and relevant government policies regarding sustainable development. The following scores were given to the LID policies:

Joint Unitary Development Plan Pembrokeshire: 17/18

Milton Keynes: 8/18 South Somerset: 3/18

Torridge: 2/18

Oxford City Council's Policy was not included in the matrix.

- 3.21 In terms of addressing the criteria of LID and relating the policy to government sustainable development objectives, Pembrokeshire's Policy 52 scores highly. As such, it is the most important policy out of the existing LID policies to be examined and considered for value in being adopted or adapted for a national policy.
- 3.22 It was for this reason that the Pembrokeshire Policy 52 was taken as a case study to discover how it is working in practice both from an applicants' and planners' point of view.

4 METHODOLOGY

Aims

4.1 One of the aims of this research was to build on the work already carried out in the area of planning policy and Low Impact Developments. As mentioned before, there has already been work done by Fairlie, Chapter 7, LUC and UWE and Baker Associates to produce a policy that would address many of the concerns of planners and at the same time allow for low impact dwellings and livelihoods in the open countryside. The culmination of this work has really been the adoption of the Pembrokeshire LID Policy 52 and the supplementary guidance that accompanies it. In terms of research, the next step is really to see how this policy is working in practice and whether it would be useful to use this policy as a model to be adopted / adapted on a wider basis. Thus the focus of this research became a case study of the Pembrokeshire LID policy.

Methods

4.2 Case studies allow for depth of study, giving a holistic view of a particular situation or phenomenon. As Denscombe (1998, p.32) points out:

"Case studies focus on one instance (or a few instances) of a particular phenomenon with a view to providing an in-depth account of events, relationships, experiences or processes occurring in that particular instance"

Since the main aim of the practical research was to examine the particular phenomenon of the Pembrokeshire Low impact development policy, a case study is highly appropriate.

- 4.3 Understanding of the situation was achieved via interviews of both the applicants and planners so that the policy could be judged from both sides. This enables a more balanced understanding and allows the reader to see differences and similarities of opinion between planners and applicants and among individuals. Simon Fairlie was also interviewed as he has been involved in research of planning policy and Low impact developments for many years. He has advised on policies and is the only person to seriously address and study the situation in the UK. His input and opinions of the situation were therefore sought to add to this study and offer an alternative analysis of the Pembrokeshire LID policy.
- 4.4 Outside of Pembrokeshire, 2 other authorities were interviewed by email: Milton Keynes district council and Oxford City council. Both of these authorities were chosen because they have low impact development or dwellings policies. The author wanted to discover opinions on LID from other planning authorities with different approaches to LID.

4.5 Sample size:

There were apparently 3 LID project applications with Pembrokeshire County Council (PCC) and 1 main LID application with Pembrokeshire Coast National Park Authority (PCNPA). Two out of the three applications with PCC were considered in this study and one with PCNPA. It would have been ideal, of course, to consider all projects and listen to all applicants and all

involved in planning and LIDs in both PCC and PCNPA. However, there are certain time limitations and practical limits to what can be achieved. Of the LID projects considered, not all applicants were interviewed. For the Roundhouse in Brithdir Mawr within PCNPA, Tony Wrench and Jane Faith were interviewed. They are both putting in a joint application now with Emma Orbach who also has some land and lives in Brithdir Mawr. Emma Orbach was not interviewed as the author was unaware she was involved in the application until actually in Brithdir Mawr and then unavailable for interview. Lammas is a large project with several applicants. The author felt it was important to interview Paul Wimbush who has taken a lead on the application process and been involved with the project from the beginning. Two others were interviewed from Lammas to add balance and perspective. From the Cutajar and Carr project, only Antony Cutajar was interviewed. 2 planners were interviewed: a representative for Pembrokeshire County Council and a representative for Pembrokeshire Coast National Park Authority. Both the planners were chosen for their depth of involvement with LIDs.

4.6 The number of people interviewed was a relatively large proportion of the small number of LID applicants in Pembrokeshire and was believed sufficient to gain an overall understanding of how Policy 52 has been working in practice to date.

Interview methodology

- 4.7 The interviews were carried out in person with the author visiting the planners, applicants and Simon Fairlie. The only exception to this was Antony Cutajar who was unavailable and interviewed over the telephone. There were sets of questions chosen for applicants, planners and Simon Fairlie. These were not given in advance but only during the interview. This means that some answers may not have been answered as fully as if more time was given for thought. However, the author was interested in individual opinions and reasons and did not want answers to be gained through consultation with others, and thus direct interviewing was chosen.
- 4.8 The advantage of carrying out interviews in person is that it enables the interviewer to follow up certain reasoning with further questions if necessary. It also enables the interviewee to see and question the interviewer if they so desire. This can engender trust and cooperation between both. The disadvantage is that it entails travel expenses and time, which can be significant depending on the distance to interviews.
- 4.9 All applicants interviewed answered the same questions. The questions for planners and Simon Fairlie contained some of the same questions as those for applicants but, since the perspective is obviously different, there were some alternative questions.
- 4.10 All interviews were recorded for accurate analysis. Antony Cutajar's answers were written down and then transcribed and checked by Antony via email to ensure he was not misquoted.



5 RESULTS

The questions are shown clearly with the responses of interviewees summarised below. All of the interviews have been transcribed and can be read in full on the enclosed disc.

Applicants' interviews

5.1 How many times have you applied for a LID on rural land?

The applicants for Lammas and Cutajar and Carr had all applied once and had their applications refused. They were resubmitting applications and waiting for responses to those. Tony Wrench and Jane Faith had a longer history of applying to live low impact in Brithdir Mawr. They had been enforced against, fined, refused planning permission several times and were also in the process of resubmission, having applied once under Policy 52 and having been refused.

5.2 What are your reasons for wanting to live on rural land in Pembrokeshire?

Tony Wrench, Jane Faith and Antony Cutajar wanted to live on rural land in Pembrokeshire for 2 main reasons. Firstly, they were determined to live rural lives in contact and in harmony with nature. Secondly, the specific areas they now live in were important to them for various reasons. Lammas was different. It was formed in direct response to the Low Impact Development Policy. All the Lammas applicants wanted to live low impact rural lives, but the actual location was not as important to them.

5.3 How would you define a LID?

Two applicants defined LID as working with nature:

"A LID involves earning a livelihood that is in harmony with nature, contributing to the landscape and environment."

"Low impact is where you are working with the earth. Any changes you make can be reversible to be realigned with the earth."

All other applicants defined LID as a way of living and working that has a low impact on the environment. One applicant defined it as going beyond mitigating negative impacts on the environment, to providing environmental benefits:

"I suppose the definition of low impact would be mitigating the destruction, so there is an impact but it is low. It would be preserving what is there as much as possible. I guess that would be the essence of low impact. More than that, I think what I'm interested in is land stewardship: seeing myself as a beneficial or benevolent addition to the ecosystem, so that I am not separate from it, I am a part of it. I make my contribution to it by being part of it. So increasing biodiversity...yes that's what it means to me: to actually add something rather than just mitigate."

Although only one applicant defined LID as providing environmental benefits in this question, almost all applicants mentioned elsewhere that LID would contribute to the environment in a beneficial way. One applicant specified further that low impact would relate to all aspects of living and working:

"For me, a low impact development is one that aims to minimise ecological footprint and, in pursuit of that, therefore involves all the aspects of living from transport to livelihood to recreation to what house you live in to what resources you bring in."

5.4 What do you think of the Pembrokeshire LID policy in theory (i.e. the written document, not how it works in practice)?

From the interviews, it appeared that most applicants felt the policy was a real step forward. Two out of the 6 interviewees did not voice any concerns about the written policy at all and felt that it was very good, although strict.

One applicant felt that it entailed a vast amount of work for applicants and that many of the safeguards were open to interpretation. Another person felt that it was too complicated and believed that Criteria 1 of Policy 52, "The policy will make a positive environmental, social and/or economic contribution with public benefit" (Policy 52), was unacceptable in theory:

"In my opinion, it's completely unacceptable to make in theory, because you can always say, "oh this won't make a contribution". They did point it out, finally, that it's going to be very difficult to prove, certainly in advance, that any planning thing for a low impact development will make an economic contribution to society. Nevertheless they have left it in, so you have those huge hurdles actually."

One applicant said:

"I think because no one has actually done it through the policy yet, it remains theory. That being said, the requirements are well-intentioned, I think, and are based on a current understanding of what low impact means and what low impact should look like. I think there are certain things like permaculture and forest gardening and those kinds of things and the people who've set the criteria for them probably don't know a whole lot about those things and so they've set criteria based on more conventional means of living and working on the land. So in that sense, I think the theory – the policy – will have to be stretched or adapted."

Two applicants felt that it was evident that planners were still not seeing the bigger picture of LID:

"Well, it would be too much to hope, I suppose, for Pembrokeshire to embrace low impact development as the thing of the future to which all houses should eventually aspire to, to acknowledge that somewhere in it (which they don't). Basically it's still seen as catering for a minority of people, hopefully trying to, in their words, "mitigate" the damage of that, so it's a bit sad. Having said that, they have accepted in principle that it might be possible to live in the countryside without spoiling it, so therefore they have allowed this policy, so that is a step forward."

"The fault with it is that in theory it still doesn't ask for a one-planet footprint. It's still seeing a house like this in planning terms, it's not seeing it in the big picture, which is that actually in Britain we should all be living a one-planet footprint. People that are not living a one-planet footprint are trashing it for the rest of humanity and wildlife and everything. We should all have it as our duty to live a one-planet footprint and so if planning rules don't put it in, they're not achieving their long term objectives, which is for us to survive. I mean, what are they planning for?"

5.5 Do you feel there is a good understanding of what a LID is among the planning authorities in Pembrokeshire (or anywhere else you may have experienced)?

5 out of 6 applicants did not feel there was a good understanding of LID among the planning authorities in Pembrokeshire or anywhere else they had experienced. Out of the 5 applicants that thought that planners did not understand LID, only one person thought they were trying to understand. One person felt that there was a fairly good understanding of the LID policy within Pembrokeshire County Council but no understanding of LID or sustainable development anywhere else this applicant had experienced.

One person felt that the planners had no understanding of the amount of work that is involved in LID and that planners were wary of them:

"There's also a lot of apprehension about us. Sometimes this is referred to as a lifestyle, which I find a bit depreciative...as if this is all a picnic; in fact it involves a lot of hard effort. We're seen as imposing on the countryside rather than enhancing it, whereas, in contrast, the local parish fully support what we are doing."

Two applicants mentioned that they thought it was a totally alien concept to planners:

"LID must be an alien concept to them. I don't think they've ever bothered to look into it."

"We are real weirdos, we are totally off the wall (to planners)...no matter how much they try and understand what we are talking about, they haven't a clue.."

Another pointed out that the planners did not seem to be envisioning that LID could be beneficial on a wider basis:

"I think there will come a time when they aren't 'they' and we are 'We'. All of us: we. So that they understand that we are really looking at what can be to the benefit of us all. Not just to the environment, the community, the council, but ourselves as well. We can all win, there is a possibility for that. I don't know that that is what they have been able to envision."

5.6 How have you found the application process? Have the planning officers been of help to you in understanding the application process?

Here are some of the comments on the application process: "Designed to put off anyone but the dedicated middle class", "Slow", "Long-winded", "Frustrating", "Arduous" and "Subjective".

All of the people interviewed who were applying for LIDs in Pembrokeshire County Council said that they had found the officers to be unhelpful, misleading and hard to get in touch with or communicate with. They also all said that the officers did not honour agreements with them and many promises had not been fulfilled:

"It's difficult to get information and impossible to set up meetings"

"They were going to hook us up with the highways agency and they never did what they said they were going to do"

"They were going to use someone who was experienced in permaculture to assess the agricultural side of our plan and they never did, they used ADAS"

"There have been a few things that they haven't necessarily honoured in their agreements – what kind of consultants they would use..."

"We had so many things half promised to us that just never emerged"

"The planners to date have been misleading, unhelpful and not at all supportive, to be frank"

The applicants for LID applying with Pembrokeshire Coast National Park Authority said that the officers there were making an effort to understand them:

"They are trying"

"The ones who have to deal directly with us have started to make an effort. They are trying to help themselves to understand"

5.7 How much time and money do you think you have you spent on your application?

Money was not a major issue for Antony Cutajar, Tony Wrench or Jane Faith. Paul Wimbush estimated that as a group Lammas had probably spent about £50,000 on the application process. If they had charged for their own time or if they had not been given professional support freely, the amount would have been significantly more.

Antony Cutajar had estimated that he had spent a month on the application. However, Antony pointed out that much of the work for the application he was doing anyway:

"It's difficult to say since a lot of things such as a business plan, land management plan, forestry plan, specialist assessments, monitoring, etc are what we are carrying out anyway"

For other applications, the amount of time involved in the process proved to be a major issue. The amount of time the applications took varied depending on the individual and the application itself. Even the applicants less involved in the process mentioned that the time was substantial. For example, one of the applicants of Lammas said that he had spent about 200 hours on the application. Another Lammas applicant said it was the equivalent of doing two university dissertations. Paul Wimbush estimated that he had spent an average of 40 hours a week on the application over 2 and a half years. Of course, some of this time would have been spent on the design of Lammas regardless of the planning system. Wimbush

(2008) estimates that Lammas could have been designed within a year and that the extra year and a half was the time required for working with the planning system. In other words, the time spent on working with the planning system was still significant.



Photograph 2: The Lammas application

Two applicants mentioned that the impact of the process had been so significant that had they known prior to application, they might not have chosen to go through with it:

"'Had I known at the beginning that it would take two and a half years, would I have gone down this road?' is a question that comes to me sometimes and I'm not sure I would. It's had an enormous price."

"If somebody had told me what was involved in it at the beginning, I might not have embarked upon it"

Tony Wrench and Jane Faith simply could not quantify the amount of time because dealing with the planning system had taken huge chunks out of their lives. Tony Wrench believed it must amount to thousands of hours:

"Time? Absolutely loads of time, unbelievable amounts of time, I just couldn't possibly say how much time because it's taken huge great chunks out of our lives.....thousands of hours, thousands.."

The indirect consequences of the planning process were also substantial for Tony Wrench and Jane Faith. For example, they had to plan for alternative solutions in case they were refused and had to move. They had also set up a website to try and inform people about what they were doing and had to deal with media interest.

5.8 Why was your application refused? Do you think the refusal was justified?

Lammas

Lammas believed they were refused due to concern over their management plans and concern over transport. All applicants interviewed stated that the comments about the management plans were more or less fair:

"The reason they gave us, and I think this does have weight to it, was that there wasn't enough detail."

"They didn't say our business plans were not viable, but they did say there was not enough information for them to be able to assess that. In my own experience, I came in just before that application went through and had to look at other plot plans to create my own, I would agree with them actually."

"Probably the refusal was justified actually because just looking at my own plan, I was very naive about some of the things I had in it."

One mentioned that the transport issue was not fair and another believed that the highways consultant had not actually read their application.

The Lammas applicants stated that the lack of detail in management plans and concern over traffic generation were the official reasons, but there were also possible other factors at play:

"I think the other part of the story is that Pembrokeshire County Council planning department is a very small, under-resourced department and faced with an application of this scale, there was a degree of panic and just inability to deal with it....the prospect of recommending it for approval was tough because they have to get through quite a tough committee and then they have to propose a set of conditions and the set of conditions for this kind of application are going to be epic."

"I do think fear is a big part of this process. I think overcoming the fears of business culture in general, the local people and the planners – it's quite conservative – is a big part of it."

"The other reason, of course was local people....I think there have been a lot of misconceptions....I don't think planners are supposed to make that a reason for their decision but when you're a county councillor and you get hundreds of letters saying, "no, we don't want this", whether they are misconceptions or not, actually it's very hard to say: "no, I'm not going to listen to you.""

It was also mentioned that the report that went to committee was full of factual errors, for example:

"It was rife with not just factual inaccuracies but wild, wrong quotes, figures..An interesting one was letters of support, there were over a hundred more than was actually accounted for in the meeting."

The Roundhouse, Brithdir Mawr

The Roundhouse was refused under Policy 52 due to the woodland management plans submitted. The planners believed that Tony Wrench and Jane Faith would deplete their woodland based on the figures they had been given. Tony Wrench and Jane Faith did not believe the refusal was justified and pointed out that they have already lived a substantial amount of time with the woodland and have not depleted it so far or depreciated it in any way:

"It was about the calculations of wood we used and they reckoned we would have appreciably diminished our woodland at the end of 20 years. Since we've been here for 10 years and we haven't at all, quite the opposite, it doesn't seem at all likely."

"Why they said they turned it down was because they said they weren't happy with the figures we gave for how much woodland we need for wood and craft materials and they thought we couldn't do that and leave the woodland in good state...We just take a bit of firewood from that whole big area down the bottom, we don't even attempt to thin it or coppice it because it's just too big. It's too much effort dragging huge chunks up the hill. We do fine just thinning or coppicing little bits in the more immediate zone. I think they must have got their figures from some commercial..I don't know where they get these figures from really, because we can manage fine on this quite small area. It's not a problem. We also have managed for 8 or 9 years doing that. If it was a problem, they should have quantified what the problem was and what the damage is, but they didn't even go and look at our coppiced area."

Moreover, it was stated that they have a relationship with the woodland and respond to its needs and what it gives:

"They have these kind of blanket rules...you know, if a person uses this much per year, the woods grow this much per year....but actually, it's not like that. We're part of the wood and we respond to it as much as it doing what we want. It gives us fallen wood and we just fit around what fits the wood."

Cutajar and Carr

Antony Cutajar did not believe the refusal for his project was justified as he was planting native trees and regenerating the land:

"We were told it would be looked on favourably if we were planting trees and we are doing so much more than that so it wasn't justified in my view."

It appears that the officers were misleading with the applicants and the applicants were unsure of what was expected of them:

"During a site visit the case officer said he needed more information as to why we had to be on site. I offered to send one of the initial drafts of our business plan that I was working on at the time, he said that wasn't necessary and he would send us a letter requesting certain

information. Two weeks later we hadn't received anything so tried calling his offices (he was a private consultant), but he was on leave. Jenny called his offices several times a week for the next three weeks but each time he was on leave, until she managed to get hold of him on the Monday. He stated he wanted justification as to why we needed to be on site, but did not let us know in what format. Two days later on the Wednesday our application was refused, before we had had a chance to respond, so that he could meet his deadline."

5.9 Do you think that LIDs should be addressed in national planning policy statements? If so, how?

All applicants believed that LID should be addressed in national planning policy. Most did not specify how. One applicant believed that there should be a new land use category for permaculture land.

5.10 Would you support a national LID policy based on the Pembrokeshire Policy 52?

Three out of the 6 applicants believed Policy 52 was a good starting point for a national policy, although some adjustments would have to be made. Two others were not adverse to Policy 52 as a national policy but pointed out that they wanted a policy which worked for people and was viable for all and they were not yet sure whether Policy 52 would be so. One applicant did not see Policy 52 as a template for national policy but wanted a new land use category for permaculture land.

5.11 Are there any other comments you would like to make?

Four out of six applicants had extra comments to make. Three said that they wished the planners would just give them a chance. One of these three said that many people are waiting for the government and planning system to help them change:

"It seems to me that this is the sort of thing that lots of people want really. They would welcome support with living more low impact, even people who live in normal houses in a normal way, they would welcome a change in climate in which the ground rules weren't "you should be making more money; becoming more and more "successful"". I think people are waiting for planning and the government and whoever it is to help them to change. They're being told the whole time, "We've got to change" and they would like to but it's not being helped. If planning can help this whole process of change, it would be fantastic"

One of the applicants mentioned that LID was affordable housing and should be seen as such by planners. The same applicant also stated that the process should be more facilitative. This same point, that the process should be more facilitative, was mentioned in other answers by 2 other applicants.

Planners' interviews

5.12 When and how did you first learn about LIDs?

Martina Dunne of PCNPA first learnt about LIDs in 1996. Peter Sedgwick of PCC first learnt about LIDs in 2002.

5.13 How would you define a LID?

Both of the planners defined LID in terms of both the livelihood and the building being low impact or sustainable. For example:

"I think initially in the early days, I was looking at it in my own head in terms of building design, the quality of design and how you take the effluent away and how you provide the water supply and all that kind of thing. But my brain has moved on since then, along with the policy too, to look at the livelihoods of the people as well with these developments. So it is to look at it as a whole and see how sustainable it is."

One also added that the livelihood is tied to the land, that there is a need to be on the land to survive:

"You had to have a reason to be in the countryside, and that reason was that your lifestyle would be sustained from the countryside and that you had to be in a countryside location to sustain that lifestyle."

5.14 Which are the LID applications you have had experience of?

Peter Sedgwick had mainly had experience of Lammas. Martina Dunne had experience of the Roundhouse at Brithdir Mawr.

5.15 Why were they refused? Do you think the refusals were justified?

Roundhouse:

"From memory, they overcame a lot of the concerns raised which was a good way forward. You know, with issues like design and materials. I think initially we were a bit hard on them in certain respects, there might have been a bit of over-interpretation of criteria. The one area that remained unresolved was whether Tony has enough woodland to manage it sustainably, keep the woodland going, which was part of the mantra of the policy."

Lammas:

"There was some doubt that they could meet criteria 6 & 7, which are to provide sufficient livelihood for and substantially meet the needs of residents. I think the backround to that was that the evidence submitted with the application suggested that some might work offsite doing various odd jobs to supplement their income. We did wonder then if you can't sustain your livelihood on site and you have to travel elsewhere, is it really low impact development?"

"There were concerns from our Highways officers about the road network and the possible number of visitors, etc and whether it could sustain that, because Glandwr is quite a small village."

5.16 What do you think of the Pembrokeshire LID policy in theory (i.e. the written document)? (Do you think there are any parts of it that may be problematic for planners or applicants? Anything missing from it? Any parts that may be difficult to prove/monitor?)

Both planners said that it will be difficult to know whether the policy is missing anything or has potential difficulties until there are actually some low impact developments accepted and in practice.

It was mentioned that large-scale settlements, such as Lammas, had not been foreseen:

"I think the county council have come back with their applying of it for the Lammas project, a large proposal a while ago. It didn't really imagine a proposal of that scale...I don't think any of us could have. Maybe that's part of its weakness because essentially that was a new settlement in the countryside, whereas I suppose in my head and in the researchers' heads, they were only thinking about small ones, ones and twos maybe. So that's an area we will have to look at in reviewing the policy."

However, it was believed that on the whole the policy has held together quite well:

"I think most of the rest of it has stayed together pretty well.....if you've got all the information the SPG asks for, it gives you the breadth and depth of detail you need to make a decent judgement. None of the officers came back to me and said, "there's a hole, there's a gap" or anything like that"

It was mentioned that there were some problems in assessing proposals:

"I think one of the problems we had in assessing this proposal was that some of the description of what they intended to produce and grow, we didn't really know whether it was possible or not. As planners, permaculture isn't really an expertise we have. We have got some consultants to have a look at whether they thought the yields and the type of things being proposed were feasible and they gave us a report on those saying they had some doubts. It's difficult to know whether the proposals are going to be realistic or not."

There has also been some concern from development control officers over the practicalities of conditioning for LIDs.

5.17 Do you feel the planners are equipped and able to deal with LIDs? (Do you feel there is enough understanding of what LIDs are? Is there enough time/resources to deal with such applications?)

Time:

"They take up an inordinate amount of time"

"The SPG is quite detailed, it takes a while for the development control officers to get their heads round it. It does take time."

"I think the difficulty may come when it comes to monitoring, but that's something you'll learn when that happens. There will be some time involved in checking whether they're meeting their aspirations"

Understanding:

"They are learning and their knowledge is improving. So yes, I think we have a good grounding in it now, I would say, but from a policy perspective and from a development control side of things. We've all been on a learning curve."

"In the permaculture aspect of it, we were struggling a bit"

"Even if you might not have the expertise yourself, it's standard practice in planning to consult. We would hope that overall we would be able to call on people either within the authority or elsewhere to help out."

5.18 Do you believe the existence of LIDs in rural areas is important? (Why? Why not?)

Both believed that LIDs were important but of limited use. Both believed that there was not enough land for everyone to live like this and both said that it is likely that not everyone would want to live like this. Both believed that it could perhaps be adapted to be more mainstream. Peter Sedgwick mentioned that there should perhaps be more of a move towards people growing their own food, whether that be in gardens, allotments or wherever possible.

5.19 Do you believe that LIDs address many of the sustainable development objectives in national planning policy statements?

Both believed that LIDs do fulfil many of the government objectives for sustainable development. Peter Sedgwick noted that where LIDs fall short of policy is that they tend to be in open countryside, which is discouraged in policy. He noted that many LIDs wish to be outside of existing settlements, which could raise questions over sustainability if it meant transport to existing services.

5.20 Why do you think other authorities have not followed your lead in introducing LID policies?

Both believed that one of the reasons why LIDs were not addressed in policy in other areas was due to a lack of demand or interest. They said that there was no point in developing a policy unless it would be used.

One reason suggested was that LIDs are viewed as a niche area and planners might be deterred by the amount of work involved in producing and keeping to such a policy:

"We talked there about how difficult it is as a concept to get your head around it and how difficult it is to draft a policy which you might apply and how difficult it is to judge an application. Some might say "if I introduce a policy, I might get loads of applications, I'd rather keep to the mainstream stuff which is much easier to manage and understand." I don't know....If you bear in mind that most planners probably see it as a niche area anyway, then it's a lot of work for just a niche area"

Another reason suggested was that it could be because there is no national government guidance on it:

"I think mainly, probably, because there isn't any government guidance on it...We're told we can diverge from that if we provide an evidence base – this is in the new planning system that supersedes this. But generally you've got to have pretty good reasons why you can do that and to show why you think you can move away from government policy and guidance. Probably that's much of the reason."

5.21 Do you think that LIDs should be addressed in national planning policy statements? If so, how?

Both felt that LIDs should be addressed in national policy. Both mentioned that the Welsh Assembly had financed two studies into LIDs but did not know why it had not been taken any further.

It was believed that the Pembrokeshire policy might be a good starting point, but both planners seemed open to suggestions. One mentioned that there may be other ways of addressing LIDs.

Summary of interview with Simon Fairlie:

- 5.22 Simon Fairlie has been involved with planning policy and LIDs in rural areas since 1995. He believes that LIDs are obviously important for those who want to live low impact in rural areas and added that they also have value in showing that it is possible to live and be happy living simpler lives with less impact on the environment.
- 5.23 Chapter 7 had significant influence on the Pembrokeshire LID policy, going to seminars and responding to drafts. Simon believes the policy is better than any other existing LID policy and that the supplementary guidance is particularly good and clear. The only real criticism was that the planners could perhaps be more specific about what they do and do not accept.
- 5.24 Simon was not particularly surprised that Lammas was refused, stating that large-scale projects are often refused at first application. He was particularly concerned with the development control officers negative approach to the Cutajar and Carr project.
- 5.25 Simon did not think that the other LID policies in existence were particularly good. He stated that Somerset's policy was a wasted policy as it only applied to tents and yurts and had not had any applications under it. He felt that Milton Keynes' policy was fairly good and that Oxford's was fairly relaxed.

- 5.26 Simon believed that there were 2 main types of LID that need to be addressed by policy. The first kind is the land-based type as addressed by Policy 52. He mentioned, however, that there are many other people who want to build their own low impact houses and live a somewhat subsistence lifestyle and that this group are not catered for at present. He suggested that this be addressed by an extension of the rural exceptions policy to allow for affordable housing on the edges of villages that meets very high environmental standards. He suggested that a good way to go about it would be to have a cohousing project with fairly dense housing and an area of land attached to it that could only be used for agricultural practices such as forest gardens, allotments or fish ponds, and to ensure the land remain that way so as to prevent suburban style gardens from emerging.
- 5.27 Simon believed that the Pembrokeshire LID policy was worth looking at as a basis for a national policy for the land-based LIDs, but that at the moment it was difficult to tell how the policy is actually being interpreted.

Results of Oxford City council and Milton Keynes

- 5.28 The planner from Oxford city council could not define LID due to a lack of knowledge about it. The planner from Milton Keynes defined it according to the Milton Keynes Policy. Whether he understood it as an individual could not, therefore, be determined. Neither of these two planners were aware of the Pembrokeshire LID policy.
- 5.29 Oxford City council had not had any applicants through its Low Impact Policy. Milton Keynes had had 2 applications through its policy, both of which were refused.
- 5.30 Both planners felt that the concept of LID was important. One of the planners believed that LIDs should be addressed in national policy. The other mentioned that there is national guidance on sustainable construction methods, but that guidance could go further to encompass other issues of sustainability.

6 DISCUSSION

Knowledge and definitions of LID

- 6.1 Both the applicants and planners interviewed in Pembrokeshire had definitions of LID that could be termed 'holistic'. They could see that LID was an exceptional example of sustainability and that as such it looked at all aspects of living: work, energy, transport, materials, waste, self-sufficiency and maintaining or enhancing biodiversity.
- 6.2 The similarity in definitions between the planners and applicants in Pembrokeshire is positive because it means that there is, at least, a common starting point to work and progress from. However, although the definitions may be similar, it does not necessarily follow that ideas about how to achieve this, or what LID entails in detail, are going to be the same.
- 6.3 The knowledge of just two planners outside of Pembrokeshire cannot be taken as representative of all other planners across the UK. However, the author does suspect that knowledge and understanding of LID elsewhere among planners is minimal. This is backed up by previous research accomplished by Boyle (2007): two out of the three planners he interviewed had no experience at all of LIDs and one of these two councils had not even heard of the term 'LID'.

Understanding of LID among planners

- 6.4 Both of the planners interviewed mentioned that there had been a learning curve and that some officers had been struggling with some of the concepts of LID. Five out of the six applicants interviewed felt that there was not a good understanding of LIDs among officers in Pembrokeshire.
- 6.5 These results are of serious concern. The applicants' lives and choice of livelihood and dwellings are being judged by planners. This obviously has huge impacts on the applicants' lives, as will be examined and discussed later in this chapter. The fact that the overwhelming majority of applicants feel there is poor understanding and planners themselves feel they are struggling with some concepts needs to be addressed.
- The author recognises that planners may be pressed for time or resources. However, if Pembrokeshire is to have a LID policy and judge LID applicants, there must be understanding among the planners involved. It is true that they can seek the advice of consultants, but ultimately the decision comes down to planners, who must be able to see the application as a whole, understand it and make as fair a judgement as possible.
- 6.7 It is unclear from the results of this study which members of the planning authorities lack understanding in LIDs. The author believes that the two planners interviewed have a relatively good understanding of LID and that misinterpretation and poor understanding is occurring elsewhere, possibly among development control officers or the committees.

6.8 To this end, the author would recommend that planners and development control officers in Pembrokeshire seek to increase their understanding of LID. This could be accomplished by a variety of means.

For example:

- -Through seminars with LID people
- Through seminars with experienced permaculture practitioners
- By requesting information or advice from those outside the system (as was done in writing the policy by seeking advice from Simon Fairlie, etc)
- -By visits to LIDs across the UK
- By going on courses
- Reading books or papers or online information (it would not take long to set up a list of useful resources to use to encourage understanding).

Policy 52: Pembrokeshire LID policy

- 6.9 The existence of this policy and the consideration and debate that has gone into it is a real step forward for planning policy. Both the applicants and planners seem to acknowledge this. Also, as Simon Fairlie pointed out, the supplementary guidance is particularly helpful and gives a relatively clear guidance to LIDs for both planners and applicants. The supplementary planning guidance (SPG) lays out in detail exactly what is expected in each application. It gives guidance on each one of the criteria of Policy 52. How to do a management plan, minimise transport and show a positive contribution are all covered in the SPG. Policy 52 is exceptional in providing this guidance and it would be worth other authorities following Pembrokeshire's example here and developing similar clear guidance on what is to be expected in applications.
- 6.10 It is evident that the planners interviewed have listened to advice and debate and really tried to make a policy that will address the concerns of planners and allow for LID in the countryside. Furthermore, both the planners interviewed seemed open to suggestions. This is a very positive way to move forward and precisely what should be encouraged. Planners and government should be working for and with people for the benefit of the land and people. They should be open to suggestions and acknowledge that they are not experts in all areas and can and should seek advice and debate from many outsiders.
- 6.11 Several of the interviewees acknowledged that the real test of the policy will come when applications have actually been accepted and are running. This is true to some extent. However, there are several points worth raising with the policy. These will be addressed below.
- 6.12 There has been concern from applicants over interpretation of the criteria. One of the planners also mentioned difficulty in judging whether the proposals are realistic or not. Both of these points are related as will be explained. To produce figures for future production or growth, which is what LID applicants have to do, you have to search for similar projects and research done on those that provides figures that can indicate to the applicant or planner how much it is possible to grow/produce/sell, etc in a given situation. Results of such studies

will be particular to certain situations and specific influencing factors. From a collection of studies, it might be possible to produce an estimate but it can only ever be an estimate, as one applicant rightly pointed out (Gipson, 2008). Future predictions also assume certain constants. In short, the whole process is based on speculation. Although there is value in applicants trying to work out whether their proposals are realistic or not, the proposals and enforced management plans present several problems and issues that need to be considered by both applicants and planners:

- 1. Much of what LID applicants are trying to achieve does not fit neatly into conventional methods. For example, many will work according to permaculture principles and are more likely to use organic or more natural farming methods, such that judging proposals by conventional methods can be misleading or worthless. This presents challenges for both planners and applicants because studies on which to base estimates may be scarcer than for conventional methods. Also, judging such proposals requires understanding and knowledge of the principles and methods upon which proposals are based. Planners are unlikely to be able to do this themselves and must, therefore, look to consultants. Their choice of consultants then becomes relevant and important. This is a point planners should take into consideration. If the proposals are to be judged in such a manner, then they should be judged by the most suitable people. For example, if it is to be a permaculture settlement, then it should be judged by people with experience in permaculture.
- 2. Enforcing management plans and strict adherence to them rules out the opportunity for experimentation to a certain extent. This can be disadvantageous as people who live on the land and try to live in contact with and grow in relationship with the natural world are continually learning. This is a positive and natural process. What might once seem a suitable method may later prove to be less so and alternative directions might be sought. Since no applications have been approved, it cannot be known how strictly management plans and adherence to them will be enforced. At present, perhaps this is merely a point that is simply worth recognising. So long as the environment is not damaged or depleted or depreciated in any way and so long as the applicant's life and work remains low impact and can be self-sufficient, the author cannot see any problem with changes in approach.
- 3. One applicant mentioned that proving a positive contribution in advance was unacceptable in theory because it could always be argued that a project would not make a positive contribution. No other applicants mentioned this and one applicant was pleased that the policy included a positive contribution. The SPG does give guidelines as to what kind of development would constitute a positive contribution and it does acknowledge that "contribution to the local economy is unlikely to be substantial given the nature of these types of proposals" (SPG, 2006). However, it is unclear to what extent a positive contribution is required. In other words, how much positive contribution is enough? For example, in the refusal report for Lammas, although Lammas did ultimately meet this criterion and had fulfilled all examples of environmental benefit and social and economic benefit, the report still pushes for more proof of benefit to the community. This is discussed further in the refusals section.

The application process

- 6.13 The procedure and communication with Pembrokeshire County Council appears to be particularly bad, with all the applicants interviewed mentioning that the officers were unhelpful and did not honour agreements. This is disturbing enough in itself, yet even more so considering the amount of time and effort the applicants give over to the application process.
- 6.14 Most of the applicants felt the amount of time involved in the process was substantial. This ranged from a total of 200 hours to thousands of hours, literally taking huge chunks of time out of the applicants' lives. The amount of time and effort the applicants had put into trying to gain planning permission shows a certain dedication and determination to live low impact, more sustainable lives in rural areas.
- 6.15 It could be said that many LID applicants are pioneers in sustainable living. They have moved beyond tokenistic gestures such as simply putting a solar panel on the roof and going offgrid to addressing all aspects of dwelling, work and social life. Arguably, they do need to be exceptional to justify their existence in open countryside. On the other hand, it is debatable whether the pressures placed on LID applicants are justifiable. Taking huge chunks of time out of peoples' lives and placing them under constant threat of disapproval and judgement by people who may not fully understand their aims and objectives are significant impacts of the planning system on LID applicants. It is unclear whether planners are aware of the impacts they are having on peoples' lives.
- 6.16 The process needs to be more facilitative. Planners need to work more and communicate much more effectively with applicants. It is not the fault of the applicants if planners are pressed for time or resources. These are faults within the system that is judging applicants and as such must be addressed.

Refusals

6.17 All applications through existing LID policies have been refused. Either the applicants are failing to meet the requirements demanded by the planning system or the system is misjudging them. The author has no knowledge of the applications refused through Milton Keynes but will analyse the Pembrokeshire refusals to a limited extent.

Lammas

6.18 Overall, the refusal for the first application of Lammas appears to be justified. All the applicants interviewed could see some justification in the refusal. Furthermore, it appears that Lammas have taken many of the points raised and addressed them for the second application and can see that, in many ways, there has been some value in the process:

"Going back and going through the whole thing again has been worthwhile in that the whole thing is now so much more detailed, much tighter. In terms of that exercise it's been very beneficial for us because we're not a development company, we haven't done this before. When we get planning, we'll have a much clearer idea of how things are going to

work, what sequence they're going to work in, who's going to be responsible for the various elements and so that has been really good and there has been value in it."

6.19 A summary of reasons for refusal is given in the report:

"Proposed development is contrary to the provisions of Policy 52 failing to adequately meet criterion 2, 6 and 7 in that some of the activities and structures on the site and potential traffic generation are not low impact, the proposal may not be able to provide sufficient livelihood for the residents without working off site and not all adults are necessarily required for the proposal to function." (Lawrence, 2007, p.25)

"The proposal does not meet the requirements of Policy 100 in that the adjacent infrastructure network does not have the capacity to serve the development." (Lawrence, 2007, p.25)

6.20 It appears that Lammas was largely refused due to lack of detail with management plans and lack of information given. Both the refusal report and the ADAS report state that there is not enough information to make an accurate judgement of proposals. For example:

"It is difficult to undertake the assessment on sustainable livelihood as mentioned in paragraphs 19-20 of the SPG. This is due to the large gaps in information required to appraise the systems. It is essential that a full financial, physical performance, marketing, and practical needs of the proposal are supplied so that an accurate feasibility assessment can be made." (ADAS, 2007)

6.21 There was also significant concern over traffic generation:

"The Lammas management plan includes a traffic reduction scheme. However, it is unclear whether this includes trips associated with the community composting scheme and trips generated during the construction phase and by seasonal and full time workers that are not resident on site once the scheme is running. It does not take account of, and cannot control casual visitors to the scheme. Highways officers are of the opinion that the local highway network cannot sustain the likely amount of traffic that will be attracted to the scheme and in this context it is not considered that the proposal will have a low impact" (Lawrence, 2007, p.13).

6.22 The planners are right to be concerned over transport, particularly in a small rural village. Again, it appears that much of the concern over transport issues is due to lack of information. However, some of the points raised in the report make little sense. For example, there is concern about traffic generation with the composting scheme. The report states, "The management plan suggests compost will be collected rather than delivered to the site. This will lead to traffic generation....It is unclear but appears unlikely that these collections have been accounted for in the traffic targets set out in the management plan" (Lawrence, 2007, p.10). Of course, collecting compost will involve the use of a vehicle. However, collection of compost using one vehicle would be preferable to delivering compost to site which would surely involve lots of vehicles.

- One of the issues raised in the report, which is of significant concern, is whether all the applicants really need to live there for the proposal to work. This relates to criterion 7 that the number of adults should be directly related to the functional requirements of the enterprise. The report states: "While it is accepted residents will need to shop, sell their produce and travel for other reasons; commuting to work from the site is not an option" (Lawrence, 2007, p.17). This is an essential part of LID in rural areas. Commuting to work is an issue in rural areas and a move away from sustainability that must be discouraged. This presents a challenge to LID applicants because it may mean a sacrifice for some people giving up previous work to join their partners on a land-based enterprise. On the other hand, as was cited in the CCW report, of all the low impact projects with which Chapter 7 has been involved "over 80% are involved in some kind of agricultural, forestry or other land-based activity, on either a full time or a part-time basis" (CCW report, 2002, p.16).
- 6.24 The report perhaps overstates the necessity for community benefit. For example: "The community hub is essentially for the use of Lammas residents not "the public" and other benefits to the community such as a minibus to Clunderwen and community composting are at best marginal. The proposal should provide a description of how it intends to monitor the effectiveness of its Welsh Language Policy and consider improved benefits for the local community" (Lawrence, 2007, p.18). Given that Lammas has given evidence of plans for environmental benefit, some community benefit and contribution to the local economy, insisting on even further positive contribution is particularly demanding, especially given all the other criteria that must be met in such an application.
- 6.25 The refusal report states that Lammas is not affordable housing according to the JUDP definition of affordable housing. Its main point is that "Lammas does not meet local need and is therefore not affordable housing" (Lawrence, 2007, p.11). This point needs to be clarified further by planners because it is certain that the housing provided by Lammas falls below current market rates (Lammas, 2008). Lammas also states that "some of the residents are local people currently living in substandard rented accommodation" (Lammas, 2008, p.15).
- 6.26 In conclusion, the author believes the refusal for Lammas was justified for the first application. In addition, as was noted by Paul Wimbush, Peter Sedgwick and Simon Fairlie, the fact that it is a large project and one of the first applications under Policy 52 means that planners are bound to be concerned that it really is and will remain low impact.

The Roundhouse, Brithdir Mawr

6.27 Both the planner and the applicants interviewed believed the roundhouse was refused due to issues with regards to woodland management. According to the refusal report, two criteria were not met:

"It is not considered that the proposal complies with criteria i and vi of the policy...It is considered that the development has had and will continue to have an adverse impact on the semi-natural habitats within the area and as a result will have a negative impact on biodiversity and the environment. Furthermore, the applicants' proposals for the forestry

aspects of their livelihood and their woodland management proposals are not sustainable within the woodland area within their control and the extraction of timber to meet their requirements would have a detrimental and degrading effect on the woodland habitat. It is also not considered that the proposal will meet their basic needs in the long term" (Development Management Committee, 2007)

- 6.28 For an understanding of the ecological impact of the development, aerial photographs from 1983 and 1992 had been used and it was concluded in the report that 2 new habitats have been created. These 2 new habitat types are the garden and the reedbed system. It is argued in the report that these habitats do not have the same value as the semi-natural habitat that has been replaced (Development Management Committee, 2007).
- 6.29 The main argument is that marshy grassland is being replaced which is a UK and Local Biodiversity Action Plan priority habitat and thus must be maintained. However, according to Tony Wrench and Jane Faith, the garden was previously "a bracken-covered bank bordered by a goat-ravaged hedge" (Wrench, Faith, 2006). They also state that the plants for the reedbed involved "transplanting native reed mace and yellow flag plants 150 metres from one field to the next" (Wrench, Faith, 2006). In addition, as they both point out they could not fulfil the other criteria of meeting 75% of basic needs or the requirement of sewage and waste water systems to be sustainable without a garden and reed bed system (Wrench, Fairth, 2006).
- 6.30 The other part of the refusal was to do with the woodland management. According to the report, the woodland officer did not believe the woodland could yield sufficient timber without causing deterioration of the woodland in the long term. As was pointed out in the interviews, this seems unlikely given that the applicants have lived there for nearly 10 years and have not degraded or depreciated it in any way so far.
- 6.31 Overall, the author would conclude that this refusal was not justified. The reasons for refusal are not well argued or evident. Having completed studies in ecology and the MSc in advanced environmental and energy studies at CAT which examines a variety of issues relevant to the built environment, energy and water systems, and having looked at the site, house, and woodland and discussed livelihood with the applicants, the author cannot see any valid reasons to refuse the application.
- 6.32 The Committee report states that "the whole woodland should be positively managed which could provide a very positive contribution to the locality, habitats and the wider National Park" (Development Management Committee, 2007). The applicants are now resubmitting a joint application with Emma Orbach with a larger area of woodland. Should this be sustainably managed, the author cannot see any reason whatsoever for a second refusal.

Cutajar and Carr

6.33 It is difficult, if not impossible, for the author to judge whether this refusal was justified because the author has not visited the site or received much information from the applicants. The refusal report is also short and not particularly informative.

6.34 The conclusion of the refusal report is as follows:

"The development represents a sporadic and isolated form of residential development within the open countryside. Its continued presence will harm the visual amenities and character of this attractive rural setting. No justification has been put forward to demonstrate an exception being made, or to provide evidence of a functional and financial need to live on this holding. For these reasons, the proposals are contrary to Policies 48 and 52 of the Joint Unitary Development Plan for Pembrokeshire" (Pembrokeshire County Council, 2007).

- According to the report, the development consists of 2 caravans at present and seed trays. The growing of native species and seedlings to be planted at site can only be of positive environmental benefit and regenerate what was once an attractive rural setting. Given that Antony and Jenny only applied for temporary permission to live at site whilst carrying out survey and regeneration work, it is to be expected that they dwell in temporary structures such as caravans.
- 6.36 It is clear that misunderstanding has occurred and that officers have been misleading with the applicants, ultimately leading to refusal of the application due to lack of information submitted. Had the officers been clear from the beginning what was expected of the applicants, this might not have occurred. This indicates just how important it is to have clear communication between planners and applicants from the start.

Should LIDs be addressed in national policy?

- 6.37 It is perhaps to be expected that the applicants in Pembrokeshire and the planners interviewed in Pembrokeshire believe that LIDs should be addressed in national policy. 10 out of the 11 interviewees in this study believed that LIDs should be addressed in national policy. The only interviewee who did not conclusively state this believed that the government could go further in providing guidance for sustainable development.
- 6.38 There are several reasons why it is important that LID is addressed at a national level. At present, the vast majority of LID applications throughout Britain will be judged as agricultural or forestry dwellings which is, as pointed out before, unfair since LIDs and what they hope to achieve differ significantly from conventional agriculture or forestry. Arguably, local authorities can prepare their own policy but this takes a significant amount of time and requires understanding on the part of the planners, which may not always be present. National guidelines could help to speed up the process and provide a baseline from which local authorities could work from.
- 6.39 Currently, industrial agriculture is the dominant form of land-based development in rural areas in Britain. Its dependency on fossil fuels, damage to the environment and inefficiency as a method of food production mean that it is not a sustainable form of land-based development and alternatives need to be found. Chapter 7 looks at some alternatives and discusses future directions for Low Impact Development and rural sustainability.

7 FUTURE DIRECTIONS FOR LID AND RURAL SUSTAINABILITY

- "After fifty years of relatively smooth passage, rural planners have suddenly ridden into a storm of difficulties. Over the next decade they will have, somehow, to curb the excesses of industrial farming; to find a role for the large acreages of agricultural land being taken out of production; to identify forms of development that will prevent the countryside becoming a 'museum' and yet protect or enhance the environment; to cope with an increasing demand for a rural life style, from everybody from commuters to New Age Travellers; to help find ways of reducing Britain's dependence on a disproportionate quantity of the world's limited resources; and to establish criteria for sustainable development in accordance with Agenda 21" (Fairlie, 1996, p.49)
- 7.2 Fairlie (1996) notes: "These are knotty problems indeed. But a tangled ball of knots will, on examination, often be found to consist of a single length of string. It is by no means easy to unravel the thread that connects all of the above issues" (p.49)
- 7.3 Unravelling the thread is, however, precisely what needs to be done. As Fairlie (1996) argues, "There are grounds for believing that current rural planning policy has taken a single solution and divided it up so as to create a number of apparently separate problems" (p.49). It has been argued that the problems are not separate but interlinked: "In our reductionist society, where every expert has their own specialised letters after their name, it is easy for us to use words to make all the above problems look separate, containable and handleable. Even within one organisation, it is possible to palm off a problem on another department. "No mate, this is the Housing Department. You want the Sustainable Development unit on the fourth floor." The continuation of such avoidance will, however, lead to crisis and the collapse of our society for the syndrome we face is uncontainable and unsustainable, economically, socially and environmentally" (Wrench, 2005).
- 7.4 LID has been found to be exceptional in addressing sustainability as a whole: "LID scores positively against three parameters of sustainability environment, community and economy (p.83)..Development which performs environmentally, socially and economically is unusual" (p.90).
- 7.5 The CCW report (2002) concludes: "It is a clear conclusion that LIDs can, compared to current conventional rural development, be a particularly sustainable form of development" (p.81).
- 7.6 Given the significant environmental impacts of industrial agriculture outlined in Chapter 2 and the increasing cost of oil, now at \$143.67 a barrel (Wearden, 2008), upon which industrial agriculture depends, it could be argued that sustainable rural land-based alternatives are urgently needed.
- 7.7 Currently, these solutions are being repressed. With the exception of a few local authorities, mainly Pembrokeshire and Milton Keynes, LIDs are still not acknowledged or addressed on a wide scale. In fact, the term LID is still not widely known and its intentions are poorly understood, even within Pembrokeshire which has the most comprehensive LID policy.

- 7.8 It is important to think of how the debate can move forward and provide practical solutions for low impact developments and the sustainability of the British countryside as a whole. From this study and the interviews carried out, three directions have been identified:
 - -The model of Policy 52 (Pembrokeshire) for a criteria-based LID policy.
 - -A permaculture or LID land use class
 - -Cohousing or commonhold developments on the edges of villages or small towns to which an area of agricultural land is attached.

Policy 52 LID policy

- 7.9 As identified by Boyle (2007), this is by far the most comprehensive LID policy and addresses many of the sustainable development objectives set out in government planning policy statements. Several of the LID applicants, one of the planners and Simon Fairlie see the policy as a good starting point or at least a base for discussion of LID in national policy.
- 7.10 Should LIDs continue to be neglected by national planning policy and the need and demand for such enterprises be identified at a local level, then local authorities would be advised to examine the Pembrokeshire Policy 52 and consider its supplementary guidance as a basis for understanding LIDs and how to relate to them in planning terms.
- 7.11 Criticisms of Policy 52, among applicants and planners, are that it is complicated and entails a large amount of work. The effects of the policy on applicants and time it can take have already been outlined in Chapter 5.
- 7.12 In the study by Boyle (2007), three planning officers were interviewed. Out of these three, one would support a policy based on Policy 52, another said that there was no demand for LID and therefore no point in forming a LID policy. Another mentioned that:
 - "The somewhat onerous aspects of Policy 52 such as the 'sustainable livelihood' section and the annual monitoring of the management plan would place an increased burden on the Planning Department which is already struggling to cope with its existing workload" (cited in Boyle, 2007, p.66).
- 7.13 All three planners interviewed by Boyle (2007) had concerns with Policy 52 over how to ensure a low impact project remained low impact into the future. With Policy 52 this can be ensured via monitoring of the management plans and setting conditions.

Permaculture or LID Land Use Class

- 7.14 Permaculture Land was originally suggested in an article by Tony Wrench in 1994 (Hopkins, 1996). The key features of Permaculture Land are outlined in Appendix 6. The idea would be to allocate land specifically for Permaculture or LID.
- 7.15 The authors of the CCW report (2002) state that a Land Use Class would not be appropriate since many of the activities of LID would fall outside of the planning system. In this report, the authors argue that it is difficult to see how a Use Class could define all the elements of LID sufficiently tightly (CCW, 2002).

- 7.16 Two of the planners interviewed by Boyle (2007) stated that having a Low Impact Land use category was unrealistic, that it would entail a lot of time and research and that they believed it was not worth the effort for such a minority of people. It is quite possible that at a national level, LID will also be viewed as a minor form of development that would not warrant the time and research to devote a land use category for it.
- 7.17 There is an alternative possibility that permaculture land or LID land grow as more of an experimental practice. Fairlie (1996) suggested that Permaculture land grow using the existing structure of Simplified Planning Zones (SPZs).
- 7.18 SPZs were originally developed to encourage private sector development (Fairlie, 1996). Fairlie identifies two advantages with SPZs:
 - "Firstly, the occupants of the SPZ are free to build anything, anywhere, within the constraints laid down by the scheme, thereby combining maximum scope for ingenuity with minimal interference and paperwork. And secondly, the development is a "one-off", a clear exception to the planning regime in the rest of the district, and therefore cannot be used as a precedent" (Fairlie, 1996, p.124).
- 7.19 Hopkins (1996) argues that SPZs would be most applicable to larger permaculture applications. The same could be said for LIDs, that it would be more suitable for LID settlements of a larger scale. SPZs can vary in size. Hopkins (1996) also argues that there may be issues with "enshrining Sustainable Development in an SPZ agreement" (p. 73). This should not be such an issue anymore as there is now, at least, some guidance on what would constitute a sustainable rural development from Fairlie and Chapter 7.
- 7.20 One of the planners interviewed by Boyle (2007) stated that SPZs could be implemented at a regional level for LID if the need was established.

Commonhold housing

- 7.21 This is a potential direction identified by Fairlie (2008) and Chapter 7 (2008). As mentioned in Chapter 5, Fairlie identifies that there are many people who would like their own low impact homes and would like to live a somewhat subsistence lifestyle and that these people are not being catered for by the planning system.
- 7.22 Fairlie argues that this could be met by an extension of the rural exceptions policy to allow for affordable houses on sites on the edges of villages that meet very high environmental standards (Fairlie, 2008).
- 7.23 The essence of this proposal is outlined below:

"The solution is really to have cohousing projects with quite dense housing but access to an area of agricultural land which belongs to the cohousing project and which can be loaned or cooperatively managed or whatever, according to whether or not the individuals in that project do want to be using land. It would only ever have permission to do agricultural things on it like forest gardens or allotments or fish ponds or whatever. That would be a real bonus to the countryside. It would keep agricultural land close to residencies, it would keep people in touch with the land, it would provide local food, just give people access to land without

- causing the kind of American type high-drive suburbia. It would get people caring more about their land and thinking about it" (Fairlie, 2008).
- 7.24 This is a positive direction for several reasons. It is likely, as both planners interviewed pointed out, that not everyone would like to live LID or is ready to live in such a manner. However, it is highly likely that there are many people who are interested in living lower impact lives more in touch with nature and there is a definite need for more affordable housing in rural areas. This direction provides such an opportunity.
- 7.25 Re-localisation of food is a key area to address in debates on sustainability and for this to occur it is important that individuals or communities have access to land near them. The high density housing on the edges of villages could also present other benefits: shared facilities, car-sharing schemes.
- 7.26 An example of such a project is Future Roots which is a housing cooperative that aims to provide affordable low impact housing with cooperatively owned agricultural land which can be used by residents (Fairlie, Chapter 7, 2008; Future Roots, 2007). Future Roots add that there will also be shared facilities, wildlife areas and that it is committed to encouraging links with the local community (Future Roots, 2007).



7.27 Key Recommendations for a more sustainable British countryside:

- LIDs to be addressed at a national level. There is now sufficient evidence that this is a highly sustainable form of rural development (CCW, 2002) and there are now criteria based policies and guidelines to help a national policy develop.
- Functional need should be addressed in both TAN 6 and PPS 7 Annex A. Functional need is currently based on arbitrary definitions of need and is exclusive to all but the large-scale farmer.
- -The financial test in TAN 6 needs to include recognition for subsistence livelihoods.
- -Local authorities would be advised to allocate land for affordable commonhold housing schemes where environmental impact is a key consideration and communal food growing is encouraged.

8 CONCLUSIONS

Limitations of study:

- 8.1 The main focus of this study was the Pembrokeshire Policy 52. It was chosen as a case study because its Policy had already been found to be the most comprehensive of existing LID policies in Britain (Boyle, 2007). The advantage of a case study is that it allows for in-depth analysis of a particular situation. There are, of course, limitations to case studies. It is not possible to generalise with such results.
- 8.2 Clearly the opinions presented in this study are those of the individuals interviewed and cannot be taken to be representative of other LID applicants or planners. The author found both of the planners interviewed to be supportive of genuine LID and both appeared to show interest and a certain understanding of the concept. It needs to be recognised that both of the planners interviewed were chosen specifically because they had more in-depth knowledge of the Pembrokeshire Policy 52 and this understanding and interest is not necessarily to be found among all planners within Pembrokeshire. As the interviews with the applicants indicate, understanding amongst other planners in the area was found to be poor and not all officers appeared to be supportive. Similarly, the CCW report (2002), research by Boyle (2007) and studies by Chapter 7 (2003) also reveals that understanding of LID among planners is poor.
- 8.3 This study looked at three different applications: The Roundhouse, Lammas and the Cutajar and Carr project. Knowledge of both the Roundhouse and Lammas was more in-depth for several reasons: Firstly, the author interviewed these members in person. Interviewing in person does not necessarily mean that more information will be gained but in this study this turned out to be the case. Secondly, both Lammas and the Roundhouse have been more publicised and provide a large amount of information to the public via the internet. Thus it was relatively easy to gain information about the Roundhouse and Lammas. Antony Cutajar and Jenny Carr were both very busy and do not have information about their project publicised and so it was more difficult to gain an in-depth understanding of their situation. For those interested in research in LID, it should be noted that Lammas and the Roundhouse are quite exceptional in that they are now both relatively well-known and information on them is easily accessible. This is not likely to be the case with most LIDs.
- 8.4 Information on planners' perspectives and how the policies are working in Oxford and Milton Keynes was fairly limited. Again, this could indeed be partly due to the method used for interviewing them. Both of these planners were interviewed by email and not in person and the responses were very short, certainly compared to those given by the planners in Pembrokeshire.

Recommendations for future research into LID

8.5 From other studies, it appears that some planners view LID as the interest of a minority of people or a niche area. It may currently be true that there are not a large number of people interested in LID, although that does not mean that its scope is by any means marginal.

However, aside from the CCW report (2002) which was largely focused on the situation in Wales and information from Fairlie and Chapter 7, there is little knowledge about the extent of interest in LID. It would be worthwhile to conduct research either on a local level or national level to discover the extent of interest in LID and interest in lower impact options such as the commonhold housing proposal (Fairlie, Chapter 7, 2008).

- 8.6 There is also a lack of research into opinions and knowledge among planners of the concept of LID or even sustainable development. A survey was carried out by ECOTRAK in 1995 to discover whether local authorities wanted LID (Howarth, 1995). A study to update this research would be worthwhile. However, the author would recommend that any such study be more in-depth than the ECOTRAK study and present results in a more transparent form, such that the reader can view the method, questions and, at least, some examples of responses.
- 8.7 If Lammas receives planning permission, monitoring of the project will go ahead and, if publicised, this will present valuable research of how a larger-scale LID project can work in practice.

Implications of research for environmental studies

- As has previously been noted by Fairlie (1996), it is planners "more than anyone, who decide what our environment will look like, where people, animals and plants will live, how we use our land and how much concrete will be poured over it every year. And yet, in all the vast literature that has emerged from the environmental movement in recent years there is barely one book that concentrates upon the nuts and bolts of the planning process from a green perspective."
- 8.9 Aside from Simon Fairlie's book on LID and planning, this comment still holds largely true. The consequences of the planning system on the environment are not widely known or documented and yet, as has been discovered from this research, the impact of the planning system is wide-ranging. By preventing genuine rural sustainable livelihoods from existing, the planning system indirectly supports the unsustainable: in this case, large-scale industrial agriculture and the interlinked problems associated with that.
- 8.10 Environmental movements need to consider the planning system far more because there is little point in promoting sustainable livelihoods unless these alternatives are actually permitted.

Conclusion:

8.11 Low impact developments have been identified as a particularly sustainable form of development (CCW, 2002) and yet despite the fact that they are exemplars of sustainability and "sustainable development is the core principle underpinning planning" (PPS1, p.2), they are still not addressed at a national level in England or Wales.

- 8.12 There are now 4 local authorities which have policies that address LIDs, the most notable of which is the Pembrokeshire LID Policy. All applications have been refused to date through the Low Impact Policies of Pembrokeshire and Milton Keynes.
- 8.13 The Pembrokeshire Policy 52 was the focus of this study. This study found the written policy to be well researched and well thought through, based on interaction with people experienced with LID and planning. The supplementary guidance was found to be particularly good, giving clear guidance on what is expected of applicants. Although there are some potential issues both from the applicants' and planners' points of view with regards to the policy, it could indeed serve as a good starting point or base to work from for a national policy.
- 8.14 The results of this study indicate that whilst the policy itself is well researched and fairly comprehensive, there are problems resulting from interpretation of criteria and there still appears to be little understanding of the concept of LID or its objectives, even within the authorities that have low impact policies.
- 8.15 Given that only 4 local authorities have low impact policies, many LID applications will continue to be judged as agricultural or forestry dwellings and not by the inherent characteristics of LID.
- 8.16 This thesis argues that the functional test for agricultural and forestry dwellings is based on arbitrary definitions of need and reveals poor understanding of the real needs of smallholders and LID applicants to live where they work. The financial test as defined by TAN 6 fails to recognise subsistence livelihoods. As many smallholders or LIDs are likely to be based on subsistence rather than profits, TAN 6 as it currently stands is likely to be even more exclusive.
- 8.17 The current system, therefore, makes it exceptionally difficult for any land-based development to exist in rural areas except for large-scale industrial agriculture.
- 8.18 It is also argued that large-scale industrial agriculture is the root of much destruction of the environment and British countryside as food has become centralised requiring an entire system based on fossil fuels to support it (transport, pesticides, fertilisers, machines, storage, processing and packaging).
- 8.19 This thesis argues that LID is mistakenly viewed as a niche or marginal area. Its scope is far greater. Whilst it is currently only accepted in pockets of the British countryside, as a concept and reality it challenges all that is unsustainable with current development in the countryside and provides a very real solution to many difficult and interlinked problems.
- 8.20 Fairlie points out: "A separate tier of sustainable or low impact planning permission would not be an end in itself but would provide an intermediary step between the present and a point in the future when unsustainable development is phased out completely. At the moment we are nowhere near that stage; we are still at the point where experiments in low impact development are strangled at birth by planning measures which are designed to

- prevent the proliferation of high impact development –yet which are manifestly failing to prevent this" (Fairlie, 1996, p.127-128).
- 8.21 It is therefore the conclusion of this thesis that currently the planning system is not conducive to Low impact developments in rural areas and that this should be addressed at a national and local level so that genuine examples of rural sustainable development may be permitted and encouraged.

APPENDIX 1: Criteria for LIDs

9 Criteria for Low Impact (Fairlie, 1996)

The development is:

Temporary
Small-scale
Unobtrusive
Made from predominantly local materials
Protects wildlife and enhances biodiversity
Consumes a low level of non-renewable resources
Generates little traffic
Is used for a low impact or sustainable purpose
Is linked to a recognised positive environmental benefit

15 Criteria for Developments associated with sustainable land-based rural activities (Chapter 7)

- [1] The project has a management plan which demonstrates:
- [a] how the site will contribute significantly towards the occupiers' livelihoods;
- [b] how the objectives cited in items 2 to 14 below will be achieved and maintained.
- [2] The project provides affordable access to land and/or housing to people in need.
- [3] The project provides public access to the countryside, including temporary access such as opendays and educational visits.
- [4] The project can demonstrate how it will be integrated into the local economy and community.
- [5] The project can demonstrate that no activities pursued on the site shall cause undue nuisance to neighbours or the public.
- [6] The project has prepared a strategy for the minimization of motor vehicle use.
- [7] The development and any buildings associated with it are appropriately sited in relation to local landscape, natural resources and settlement patterns.
- [8] New buildings and dwellings are not visually intrusive nor of a scale disproportionate to the site and the scale of the operation; and are constructed from materials with low embodied energy and environmental impact, and preferably from locally sourced materials, unless environmental considerations or the use of reclaimed materials determine otherwise. Reuse and conversion of existing buildings on the site is carried out as far as practicable in conformity with these criteria.
- [9] The project is reversible, insofar as new buildings can be easily dismantled and the land easily restored to its former condition.
- [10] The project plans to minimize the creation of waste and to reuse and recycle as much as possible on site.

- [11] The project has a strategy for energy conservation and the reduction, over time, of dependence on non-renewable energy sources to a practical minimum.
- [12] The project aims over time for the autonomous provision of water, energy and sewage disposal and where it is not already connected to the utilities, shall make no demands upon the existing infrastructure.
- [13] Agricultural, forestry and similar land-based activities are carried out according to sustainable principles. Preference will be given to projects which conform to registered organic standards, sustainable forestry standards or recognized permaculture principles.
- [14] The project has strategies and programmes for the ecological management of the site, including:
- [a] the sustainable management and improvement of soil structure;
- [b] the conservation and, where appropriate, the enhancement of semi-natural habitat, taking into account biodiversity, indigenous species, and wildlife corridors;
- [c] the efficient use and reuse of water, as well as increasing the water holding capacity of the site;
- [d] the planting of trees and hedges, particularly in areas where the tree coverage is less than 20 per cent.
- [15] The project can show that affordability and sustainability are secured, for example, by the involvement of a housing association, co-operative, trust or other social body whose continuing interest in the property will ensure control over subsequent changes of ownership and occupation.

Source: http://www.tlio.org.uk/chapter7/defining.html

APPENDIX 2

Permanent agricultural dwellings (PPS 7, Annex A)

- 3. New permanent dwellings should only be allowed to support existing agricultural activities on well-established agricultural units, providing:
- (i) there is a clearly established existing functional need (see paragraph 4 below);
- (ii) the need relates to a *full-time* worker, or one who is primarily employed in agriculture and does not relate to a part-time requirement;
- (iii) the unit and the agricultural activity concerned have been established for at least three years, have been profitable for at least one of them, are currently financially sound, and have a clear prospect of remaining so (see paragraph 8 below);
- (iv) the functional need could not be fulfilled by another existing dwelling on the unit, or any other existing accommodation in the area which is suitable and available for occupation by the workers concerned; and
- (v) other planning requirements, e.g. in relation to access, or impact on the countryside, are satisfied.
- 4. A *functional test* is necessary to establish whether it is essential for the proper functioning of the enterprise for one or more workers to be readily available at most times. Such a requirement might arise, for example, if workers are needed to be on hand day and night:
- (i) in case animals or agricultural processes require essential care at short notice;
- (ii) to deal quickly with emergencies that could otherwise cause serious loss of crops or products, for example, by frost damage or the failure of automatic systems.
- 5. In cases where the local planning authority is particularly concerned about possible abuse, it should investigate the history of the holding to establish the recent pattern of use of land and buildings and whether, for example, any dwellings, or buildings suitable for conversion to dwellings, have recently been sold separately from the farmland concerned. Such a sale could constitute evidence of lack of agricultural need.
- 6. The protection of livestock from theft or injury by intruders may contribute on animal welfare grounds to the need for a new agricultural dwelling, although it will not by itself be sufficient to justify one. Requirements arising from food processing, as opposed to agriculture, cannot be used to justify an agricultural dwelling. Nor can agricultural needs justify the provision of isolated new dwellings as retirement homes for farmers.
- 7. If a functional requirement is established, it will then be necessary to consider the number of workers needed to meet it, for which the scale and nature of the enterprise will be relevant.
- 8. New permanent accommodation cannot be justified on agricultural grounds unless the farming enterprise is economically viable. A *financial test* is necessary for this purpose, and to provide evidence of the size of dwelling which the unit can sustain. In applying this test (see paragraph 3(iii) above), authorities should take a realistic approach to the level of profitability, taking account of the nature of the enterprise concerned. Some enterprises which aim to operate broadly on a subsistence basis, but which nonetheless provide wider benefits (e.g. in managing attractive landscapes or wildlife habitats), can be sustained on relatively low financial returns.
- 9. Agricultural dwellings should be of a size commensurate with the established functional requirement. Dwellings that are unusually large in relation to the agricultural needs of the unit, or

unusually expensive to construct in relation to the income it can sustain in the long-term, should not be permitted. It is the requirements of the enterprise, rather than those of the owner or occupier, that are relevant in determining the size of dwelling that is appropriate to a particular holding.

- 10. Local planning authorities may wish to consider making planning permissions subject to conditions removing some of the permitted development rights under part 1 of the Town and Country Planning (General Permitted Development) Order 1995 for development within the curtilage of a dwelling house. For example, proposed extensions could result in a dwelling whose size exceeded what could be justified by the functional requirement, and affect the continued viability of maintaining the property for its intended use, given the income that the agricultural unit can sustain. However, it will always be preferable for such conditions to restrict the use of specific permitted development rights rather than to be drafted in terms which withdraw all those in a Class (see paragraphs 86-90 of the Annex to DOE Circular 11/95).
- 11. Agricultural dwellings should be sited so as to meet the identified functional need and to be well-related to existing farm buildings, or other dwellings.

Temporary agricultural dwellings

- 12. If a new dwelling is essential to support a new farming activity, whether on a newly-created agricultural unit or an established one, it should normally, for the first three years, be provided by a caravan, a wooden structure which can be easily dismantled, or other temporary accommodation. It should satisfy the following criteria:
- (i) clear evidence of a firm intention and ability to develop the enterprise concerned (significant investment in new farm buildings is often a good indication of intentions);
- (ii) functional need (see paragraph 4 of this Annex);
- (iii) clear evidence that the proposed enterprise has been planned on a sound financial basis;
- (iv) the functional need could not be fulfilled by another existing dwelling on the unit, or any other existing accommodation in the area which is suitable and available for occupation by the workers concerned; and
- (v) other normal planning requirements, e.g. on siting and access, are satisfied.
- 13. If permission for temporary accommodation is granted, permission for a permanent dwelling should not subsequently be given unless the criteria in paragraph 3 above are met. The planning authority should make clear the period for which the temporary permission is granted, the fact that the temporary dwelling will have to be removed, and the requirements that will have to be met if a permanent permission is to be granted. Authorities should not normally grant successive extensions to a temporary permission over a period of more than three years, nor should they normally give temporary permissions in locations where they would not permit a permanent dwelling.

Forestry dwellings

14. Local planning authorities should apply the same criteria to applications for forestry dwellings as to those for agricultural dwellings. The other principles in the advice on agricultural dwellings are equally relevant to forestry dwellings. Under conventional methods of forestry management, which can involve the use of a peripatetic workforce, new forestry dwellings may not always be justified, except perhaps to service intensive nursery production of trees.

Other occupational dwellings

15. There may also be instances where special justification exists for new isolated dwellings associated with other rural based enterprises. In these cases, the enterprise itself, including any development necessary for the operation of the enterprise, must be acceptable in planning terms and permitted in that rural location, regardless of the consideration of any proposed associated dwelling. Local planning authorities should apply the same stringent levels of assessment to applications for such new occupational dwellings as they apply to applications for agricultural and forestry workers' dwellings. They should therefore apply the same criteria and principles in paragraphs 3-13 of this Annex, in a manner and to the extent that they are relevant to the nature of the enterprise concerned.

Occupancy conditions

- 16. Where the need to provide accommodation to enable farm, forestry or other workers to live at or near their place of work has been accepted as providing the special justification required for new, isolated residential development in the countryside, it will be necessary to ensure that the dwellings are kept available for meeting this need for as long as it exists. For this purpose planning permission should be made subject to appropriate occupancy conditions. DOE Circular 11/95 gives further advice and provides model occupancy conditions for agricultural dwellings and for other staff accommodation.
- 17. Changes in the scale and character of farming and forestry may affect the longer-term requirement for dwellings for which permission has been granted subject to an agricultural or forestry occupancy condition. Such dwellings, and others in the countryside with an occupancy condition attached, should not be kept vacant, nor should their present occupants be unnecessarily obliged to remain in occupation simply by virtue of planning conditions restricting occupancy which have outlived their usefulness. Local planning authorities should set out in LDDs their policy approach to the retention or removal of agricultural and, where relevant, forestry and other forms of occupancy conditions. These policies should be based on an up to date assessment of the demand for farm (or other occupational) dwellings in the area, bearing in mind that it is the need for a dwelling for someone solely, mainly or last working in agriculture or forestry in an area as a whole, and not just on the particular holding, that is relevant in the case of farm or forestry workers' dwellings.

http://www.communities.gov.uk/documents/planningandbuilding/pdf/147402.pdf

APPENDIX 3

Permanent agricultural dwellings (TAN 6)

- 41. New permanent dwellings should only be allowed to support existing agricultural activities on well-established agricultural units, providing:
- (a) there is a clearly established existing functional need;
- (b) the need relates to a *full-time* worker, or one who is primarily employed in agriculture, and does not relate to a part-time requirement;
- (c) the unit and the agricultural activity concerned have been established for at least three years, have been profitable for at least one of them, are currently financially sound, and have a clear prospect of remaining so;
- (d) the functional need could not be fulfilled by another dwelling already on the unit, or any other existing accommodation in the area which is suitable and available for occupation by the workers concerned; and
- (e) other normal planning requirements, for example, on siting and access, are satisfied.
- 42. A *functional test* is necessary to establish whether it is essential for the proper functioning of the enterprise for one or more workers to be readily available at most times. Such a requirement might arise, for example, if workers are needed to be on hand day and night:
- in case animals or agricultural processes require essential care at short notice;
- to deal quickly with emergencies that could otherwise cause serious loss of crops or products, for example, by frost damage or the failure of automatic systems.
- 43. In cases where the local planning authority is particularly concerned about possible abuse, it may be helpful to investigate the history of the holding to establish the recent pattern of use of land and buildings and whether, for example, any, dwellings or buildings suitable for conversion to dwellings have recently been sold separately from the farmland concerned. Such a sale could constitute evidence of lack of agricultural need.
- 44. The protection of livestock from theft or injury by intruders may contribute on animal welfare grounds to the need for an agricultural dwelling, although it will not by itself be sufficient to justify one. Requirements arising from food processing, as opposed to agriculture, cannot be used to justify an agricultural dwelling.
- 45. If a functional requirement is established, it will then be necessary to consider the number of workers needed to meet it, for which the scale and nature of the enterprise will be relevant.
- 46. New permanent accommodation cannot be justified on agricultural grounds unless the farming enterprise is economically viable. A *financial test* is necessary for this purpose, and to provide evidence of the size of dwelling which the unit can sustain.
- 47. Agricultural dwellings should be of a size commensurate with the established functional requirement. Dwellings which are unusually large in relation to the agricultural needs of the unit, or unusually expensive to construct in relation to the income it can sustain in the long-term, should not normally be permitted. It is the requirements of the enterprise rather than of the owner or occupier which are relevant to determining the size of dwelling that is appropriate to a particular holding.

Reference

- 48. There will be some cases in which the planning circumstances of the site are such that , if a new permanent dwelling is approved, the local planning authority may wish to consider making permission subject to a condition removing some of the permitted development rights for development within the curtilage of a dwelling house. For example, proposed extensions could result in a dwelling whose size exceeded what could be justified by the functional requirement, and affect the continued viability of maintaining the property for its intended use given the income which the agricultural unit can sustain. However, it will always be preferable for such conditions to restrict the use of specific permitted development rights rather than to be drafted in terms which withdraw all those in a Class.
- 49. Care should be taken to choose a site which is suitably located to meet the identified functional need and well-related to existing farm buildings or other dwellings. Local planning authorities are able where necessary to control the siting of agricultural buildings erected under permitted development rights (see Annex B). When they are considering the siting of such buildings, the possible need for an agricultural dwelling in connection with them is capable of being a material consideration.

Temporary agricultural dwellings

- 50. If it is considered that a new dwelling will be essential to support a new farming activity, whether on a newly-created agricultural unit or an established one but the case is not completely proven, it should normally for the first three years be provided by a caravan, a wooden structure which can be easily dismantled, or other temporary accommodation. It should satisfy the following criteria:
- (a) clear evidence of a firm intention and ability to develop the enterprise concerned (significant investment in new farm buildings is often a good indication of intentions);
- (b) functional need;
- (c) clear evidence that the proposed enterprise has been planned on a sound financial basis;
- (d) the functional need could not be fulfilled by another dwelling on the unit, or any other existing accommodation in the area which is suitable and available for occupation by the workers concerned; and
- (e) other normal planning requirements, for example on siting and access, are satisfied.
- 51. If permission for temporary accommodation is granted, permission for a permanent dwelling should not subsequently be given unless the criteria in paragraph 41 are met. The planning authority should make clear the period for which the temporary permission is granted, the fact that the temporary dwelling will have to be removed, and the requirements that will have to be met if a permanent permission is to be granted. It will be unsatisfactory to grant successive extensions to a temporary permission over a period of more than three years.

Forestry dwellings

52. Local planning authorities should apply the same criteria to applications for forestry dwellings as to agricultural dwellings. The other principles in the advice on agricultural dwellings are equally relevant to forestry dwellings. Under conventional modern methods of forestry management, which use a largely peripatetic workforce, a new forestry dwelling is unlikely to be justified except perhaps to service intensive nursery production of trees.

http://new.wales.gov.uk/docrepos/40382/epc/planning/403821/40382/403826/tan6_e.pdf?lang=en

APPENDIX 4: LOCAL LID POLICIES

PEMBROKESHIRE

POLICY 52 LOW IMPACT DEVELOPMENT MAKING A POSITIVE CONTRIBUTION:

Low impact development that makes a positive contribution will only be permitted where:

- i) the proposal will make a positive environmental, social and/or economic contribution with public benefit; and
- ii) all activities and structures on site have low impact in terms of the environment and use of resources; and
- iii) opportunities to reuse buildings which are available in the proposal's area of operation have been investigated and shown to be impracticable; and
- iv) the development is well integrated into the landscape and does not have adverse visual effects; and
- v) the proposal requires a countryside location and is tied directly to the land on which it is located, and involves agriculture, forestry or horticulture; and
- vi) the proposal will provide sufficient livelihood for and substantially meet the needs of residents on the site; and
- vii) the number of adult residents should be directly related to the functional requirements of the enterprise; and
- viii) in the event of the development involving members of more than one family, the proposal will be managed and controlled by a trust.

(Pembrokeshire JUDP, 2006)

MILTON KEYNES

LOW IMPACT DWELLINGS IN THE OPEN COUNTRYSIDE POLICY H11

As an exception to Policy S10, planning permission may be granted for low impact dwellings in the open countryside, where the proposal meets all of the following criteria:

- (i) Any structures will not be visually intrusive.
- (ii) Dwellings incorporate the highest standard of energy efficiency, to achieve an energy rating of 10 on the NHER scale or will be dismantled and the land restored to its former condition after an agreed temporary period.
- (iii) It maximises the potential for energy, water supply, surface water drainage, sewage treatment and waste disposal to be generated or managed on-site.
- (iv) It demonstrates how the number and length of trips by motor vehicles will be minimised.
- (v) It will increase woodland cover and other wildlife habitats.
- (vi) The proposal includes a management plan showing how the above criteria will be met.

(Milton Keynes Local Plan, 2005)

OXFORD CITY COUNCIL

LOW IMPACT HOUSING: POLICY HS18

Planning permission will be granted for low-impact housing on a temporary basis in exceptional circumstances where residential applications would otherwise be refused. Any application for such a proposal must be accompanied by such additional information as the City Council considers appropriate to describe the construction, impact, duration and occupation of the proposal.

(Oxford Local Plan, 2005)

SOUTH SOMERSET

POLICY HG12

Proposals for low impact dwelling sites will not be permitted unless:

- 1. All structures are temporary bender or yurt type structures, are not visually intrusive and their removal will allow regeneration of the site.
- 2. Vehicle movements, noise, fumes or any subsidiary business activities would not harm the residential amenities of neighbouring dwellings or the character of the area.
- 3. The site is reasonably well related to schools and other community facilities.
- 4. No serious highway problem would result.
- 5. The site includes the following facilities:
 - 1. A refuse collection point.
 - 2. Access to a drinking water supply.
 - 3. A satisfactory means of sewage disposal/management and surface water disposal.
- 6. Landscaping schemes and/or land management are provided if appropriate.

All permissions granted will be temporary to allow for review and assessment of the impact of the site.

(South Somerset Local Plan, 2006)

APPENDIX 5: INTERVIEW QUESTIONS AND REASONS BEHIND QUESTIONS

Interviews with applicants

The questions for applicants are outlined below with the reasons for interest in each question in italics.

1. How many times have you applied for a LID on rural land?

It is intended that the answers to this question will reveal to what extent the applicants had prior knowledge of the planning system, for how long they may have had to struggle to live a LID lifestyle. If the applicants have applied more than once and later evidence proves the process to be difficult, then it will also show a certain strength and determination of the applicant to live a LID lifestyle.

2. What are your reasons for wanting to live on rural land in Pembrokeshire?

The answers to this question may reveal why people have applied specifically to live in Pembrokeshire. It may then become clear whether it is because Pembrokeshire is one of the only places to hold a LID policy or whether it is due to particular attachments or connections to the area.

3. How would you define a LID?

It is important to ask this question of all members involved in the LID debate. Each individual is likely to have their own definition or focus, even if there are many features in common with others' replies. By asking this question, a variety of perspectives are allowed for and any resulting understanding of LID is likely to be more balanced.

Another reason this question was asked was to see if applicants' definitions met those of the planners and the policy and vice versa. If there is no common ground between the two sides in terms of defining LID, then the policy and applications would be somewhat pointless.

4. What do you think of the Pembrokeshire LID policy in theory (i.e. the written document, not how it works in practice)?

In theory, it may seem that something is succinct and will work well. In practice, it may be a different story. The aim here was to examine both theory and practice. As both of the planners interviewed were keenly aware, the real test of the policy is to see how it works in practice. It is also important, however, to examine the theory first, to check it for potential or faults. If a theory is built on shaky foundations, then the practice is likely to be problematic. For example, as mentioned before, the UK government principle of economic growth for sustainable development is illogical. There is absolutely no evidence to show that economic growth is sustainable and there is much evidence to suggest the opposite. Put into practice, there are obvious problems and consequences that arise from that belief or theory.

5. Do you feel there is a good understanding of what a LID is among the planning authorities in Pembrokeshire (or anywhere else you may have experienced)?

This is an important question. The applicants are people who have been and are living, or would like to live, a LID lifestyle. This choice they have made will be judged by people who may or may not live this lifestyle. Most planners or development control officers do not live a LID lifestyle. So how can they judge them? Do planners have knowledge and understanding of LIDs? Do they understand what sustainability or permaculture means and are they equipped to judge such a situation as individuals or a team? Do the applicants believe they are capable of judging them fairly and accurately?

6a. How have you found the application process?

6b. Have the planning officers been of help to you in understanding the application process?

It is important to understand whether the process is facilitative or not. The applicants and their lifestyles will be examined and scrutinised by people who, at least initially, will be strangers to them. This can be daunting or may involve work or processes that the applicants are totally unfamiliar with.

7. How much time and money do you think you have spent on your application?

It is worth asking this question because if the process proves to be expensive or very time-consuming, then it means that some people are automatically excluded from the process. If funds, contacts and time are limited for an applicant, then the process may be much more difficult or impossible.

8. Why was your application refused? Do you think the refusal was justified?

This question was largely asked to see if there were any areas of agreement/disagreement over the applications' refusals.

9. Do you think that LIDs should be addressed in national planning policy statements? If so, how?

This is one of the main aims of the thesis: to ascertain whether LIDs should be addressed in national policy. It was worth asking applicants and planners their opinions to see if they thought a national policy would be worthwhile and to see how they thought LID would best be addressed at a national level.

10. Would you support a national LID policy based on the Pembrokeshire Policy 52?

This question was to see applicants' and planners' opinions of the Pembrokeshire Policy and whether they thought it would stand as a useful model to be adopted and/or adapted at a national level.

11. Are there any other comments you would like to make?

This was to check whether there was anything the applicants felt was important or wanted to say, but that had not been acknowledged or addressed by my questions.

Interviews with Planners in Pembrokeshire

The questions for planners are outlined below with reasons for interest in each question in italics.

1. When and how did you first learn about LIDs?

This will give the reader and researcher an idea of the amount of time the planner has been aware of LIDs and how they initially learnt about them. This might give some indication of the extent they have been involved with LIDs from a planners' or personal point of view.

2. How would you define a LID?

As pointed out before, it is important to ask all members of the LID debate this question for the reasons outlined previously.

3. Which are the LID applications you have had experience of?

Answers to this question will reveal the specific experiences of LIDs the planners have had. Each situation will be unique and present particular challenges for planners. Answers to this question will also reveal the limitations of planners' experience of LIDs.

4. Why were they refused? Do you think the refusals were justified?

This is the same question as Q8 to applicants. This is to discover whether there are any similarities or differences between planners and applicants' opinions.

5. What do you think of the Pembrokeshire LID policy in theory (ie. The written document)? Do you think there are any parts of it that may be problematic for planners or applicants? Anything missing from it? Any parts that may be difficult to prove/monitor?

This is a similar question to Q4 to applicants, just with slightly more probing questions to the planners. They were formed with the intention of finding out the planners' impressions of the policy in theory, to discover whether they could foresee any potential difficulties or problems from a planners' point of view.

6. Do you feel the planners in Pembrokeshire are equipped and able to deal with LIDs? (Do you feel there is enough understanding of what LIDs are? Is there enough time / resources to deal with such applications?)

These were important questions to ask. In the study of LIDs and planning by Boyle, 2 out of 3 planners interviewed mentioned that there would be resource issues with regards to LID, with one planner stating: "the somewhat onerous aspects of Policy 52 such as the 'sustainable livelihood' section and the annual monitoring of the management plan would place an increased burden on the Planning Department which is already struggling to cope with its existing workload." (cited in Boyle, 2007, p.66)

Another point worth making is that sustainable development objectives have only recently become common in national policy. It is the planners' duty to follow national government objectives on sustainable development. If sustainable development is poorly defined by government, and planners

then receive no particular training or education nor question themselves what sustainability means, their understanding will be limited. Whilst there are national guidelines for sustainable development, there are none for LIDs so the planners have to look elsewhere for understanding. They must rely on their own direct experience of LIDs which may be limited. In addition, the knowledge and understanding amongst the team is unlikely to be even. Some may have absolutely no knowledge or understanding, whereas others with more experience may be more aware. Policy 52 is a relatively new policy in Pembrokeshire and it is therefore important to understand how and whether it is indeed possible for the planning team to judge LIDs accurately and fairly. Do planners themselves feel capable of judging such a situation?

7. Do you believe the existence of LIDs in rural areas is important? Why? Why not?

The author wanted to discover whether the planners saw this policy as simply catering for a minority group of people or whether they believed there was some further importance or value beyond just the existence of LIDs. Did they believe LIDs hold greater value to the rest of society or hold a significant place in the environmental debate?

8. Do you believe that LIDs address many of the sustainable development objectives in national planning policy statements? Why do you think other authorities have not followed your lead in introducing LID policies?

The first part of this question was to analyse to what extent the planners believed LIDs were in keeping with government sustainable development objectives. The second part of this question was addressed in a thesis by Boyle (2007). The author wanted to see if the planners interviewed in Pembrokeshire had similar or different reasons as to why LIDs had not been addressed in other areas.

9. Do you think that LIDs should be addressed in national planning policy statements? If so, how?

This question, as mentioned before, is one of the key aims of this thesis. Having answers to this question from both planners and applicants can really add varied perspectives to the debate and aid in making a more balanced conclusion from the research. Since Pembrokeshire are the only authority to develop a substantial LID policy or have much experience of LIDs from a planning point of view, it is particularly relevant to ask whether they feel a national policy would be beneficial.

10. Do you have any other comments you would like to make?

The author wanted the planners to feel they could add any points or arguments that may have been missed by the previous questions.

Interview with Simon Fairlie

The questions to Simon Fairlie are outlined below with reasons for interest in each question in italics.

1. For how many years have you been involved with the issues of planning policy and LIDs in rural areas?

Although the amount of time someone has been involved in a certain matter does not necessarily correlate with expertise or insight, it certainly indicates a history of involvement and, if voluntary, interest and dedication to the issue. This is likely to lead to greater insight.

2. Do you believe the existence of LIDs in rural areas is important?

It was believed that Simon would answer "yes" to this question, however the author did not want to presume anything. The author also wanted to see if the answer bore any similarity to the planners' opinions of LIDs.

3. Can you explain to me the extent of input and influence you or Chapter 7 had on the Pembrokeshire LID policy?

This question is relevant for two main reasons. Firstly, if there was a lot of input from Simon Fairlie and Chapter 7 into the Pembrokeshire LID policy, then it is unlikely that Simon Fairlie will disagree significantly with the policy in theory. Secondly, it is interesting to note to what extent planners have been willing to listen to people outside of their system and to incorporate these opinions and suggestions into policy.

4. What do you think of the Pembrokeshire LID policy in theory (ie. The written document, not how it works in practice)? Are there any aspects of it that you disagree with, or do you think there is anything missing from it? Or that parts of it may be difficult to prove/monitor?

Policy 52 went through several consultations and changes and developed over time into the policy that exists today. The author wanted to see if Simon Fairlie was satisfied with the policy as it stands now or whether he saw any potential difficulties or faults in the theory.

5. Are you aware of the LIDs that have applied under the Pembrokeshire LID policy? Do you think their refusals were justified in any way?

The author believed that Simon would have some knowledge of the LIDs that have applied under the policy, but needed to check. His opinions of the refusals may offer further insight as an alternative outside voice that is neither that of applicant or planner in Pembrokeshire.

6. What do you think of the other counties' policies that mention/address LIDs?

It is relevant to consider other UK policies that address LIDs. Few people other than Simon Fairlie are aware of them. Few people, in short, know much about planning policy and low impact developments. Simon Fairlie is the only person to have studied this area for any significant time (and

write about it). Therefore, his opinion on policies and whether they really address the situation is valid and worth consideration.

7. Do you think that LIDs should be addressed in national planning policy? If so, how?

This is an important question for this thesis, as mentioned before. Opinions from all sides of the debate can only help to achieve greater understanding and balance.

8. Do you think the Pembrokeshire policy would form a good basis for a national policy on LIDs?

This is another main question of this research: to see how the policy stands as a model to be adopted on a wider basis.

9. What do you see as the future directions for applicants and planners with regards to LIDs in rural areas?

It is important to think of how the debate can move forward and provide practical solutions for low impact developments and the sustainability of the British countryside as a whole.

10. Do you have any other comments you would like to make?

To check whether there was anything else the interviewee believed was important to add, that may have been missed in my questions.

Questions to Milton Keynes and Oxford City council:

- 1. What were the reasons for development of your Low Impact Policy? (To Oxford only: why does the policy exist only for temporary structures?)
- 2. How many applications have there been under this policy to date?
- 3. How many applications have been refused / accepted?
- 4. How would you define a LID?
- 5. Do you feel the existence of LIDs in rural areas is important?
- 6. Do you believe that LIDs should be addressed in national policy? If so, how?
- 7. Are you aware of the Pembrokeshire LID policy? Do you feel this is a useful model to be adopted on a wider basis?

APPENDIX 6

PERMACULTURE LAND (TONY WRENCH)

Imagine a new category of land use - Permaculture Land (Pc Land). This is land used for permaculture - sustainable self-reliant agriculture and horticulture in which work, house building, leisure, growing food, rearing animals, education, renewable energy, recycling and nature conservation are integrated in an infinite number of ways. The essence of Pc Land would be that there is a contractual relationship between the owner and the local/national authorities. This states, basically:

'I will buy and live on just this piece of land.

I will not buy several plots and speculate.

I will not let it out.

I will conserve energy and nature in line with a permaculture design.

I will plant over 20 trees per acre.

I will co-operate with my neighbours over transport, infrastructure, power generation, waste disposal, water harvesting and supply, and common land.

In return for the freedom to build my own house in the style I choose I will do without additional connections to mains water, electricity, sewerage or road systems.'

Planning authorities would be given the power to designate any area Pc Land, whether it was previously industrial, agricultural, military or even residential land. Conditions would be put on the number of dwellings per acre (maybe a maximum of two), roads and vehicles, and a height limit of structures appropriate to the site - say 10 metres. Authorities would be encouraged to designate areas of several square miles, or large zones of Pc Land. These could be areas currently suffering the effects of monoculture, depopulation, inadequate housing or chronic unemployment. Disused military bases could be designated Pc Land. Any farmer or landholder could apply to change from agricultural land to Pc Land, and there would be a presumption in favour of acceptance.

The consequences of this small change to planning law would of course be enormous, and I invite you to use your imagination with me. We might envision this scenario [and please bear in mind the global warming scenarios that will be unfolding in parallel]:

Year 1

Government, in conjunction with the Town and Country Planning Institute, designates the first 20 trial areas. Farmers elsewhere apply in their hundreds for designation, and succeed. Their land sells at £10,000 per acre, as against about £2,000 now. Pioneer communities set up throughout Britain. Stroud sprouts Sustainable Villages. There is an explosion of building work in rural areas, and thus a marked expansion in allied industries. [Peak Oil is acknowledged - crude oil hits \$60 a barrel]

Year 5

Pc Land prices stabilise at £5,000 per acre. First legal trial cases against land speculation and breach of Pc Land contracts are decided in the local authorities' favour. A surge in Land Trusts emerges. These trusts hold the common land and freehold of ecovillage sites. A massive re-afforestation programme is happening, as Pc landholders take advantage of already existing woodland planting and hedgerow creation grants. There is a boom in renewable energy, alternative technology, landscaping and permaculture design. Photovoltaic prices drop markedly. Homeless figures drop, as do housing waiting lists. The first self-build community schools are established. [Gulf Stream slowing - official]

Year10

House prices in suburbia fall. Inner cities become significantly greener as authorities increasingly designate inner city zones of Pc Land. The Government offers a Basic Income of £40 per week to all Pc Land dwellers, with a consequent fall in jobless totals and DSS budget. Fruit imports drop for the first time ever. Local markets and LETS systems blossom. Wales becomes a net exporter of electricity, from renewable sources. [Greenland Ice Sheet melting fast - Holland draws up emergency evacuation plans - oil hits \$100 a barrel - western economies in crisis]

Year 20

National demand for electricity stabilises. All nuclear power stations are closed, starting with those at pre-2000 sea level. A new tourist industry in Pc areas develops. Pc Land principle adopted in all EU countries. A crash programme of demolishing old unsustainable housing and rebuilding as ecovillages is started. [Western Ice Sheet of Antartica starts to move - Holland, Bangladesh, London, Cardiff, all oil terminals in the world, etc flooded. Gulf Stream stops, the penny drops].

The consequences of a Pc Land reform would, you can see, be revolutionary. [Make up your own scenarios - these are simply a few events that I think look likely from here]. Enthusiastic implementation would result in a burgeoning of creative talent as millions of people had access to land, with a great mushrooming of diversity of habitats both for wildlife and for humans. In some respects we can see that it would be but a logical extension of present government policies towards more land ownership, individual responsibility and deregulation in many areas of life. It would certainly have a short term effect of creating some windfall riches for present land-owners - maybe a windfall tax would be in order, thereby creating a win-win situation for people and the government.

In other respects this proposal can be seen as subversive, as being a step towards the restoration of a yeomanry of free landowning citizens, organising themselves as they will, consuming less of the products of big business, and being less dependent on the state for livelihood, work, food or entertainment.

People with a vested interest in the paternalistic power structure will find it very hard to let go of the reins over even a small proportion of the land. They would probably oppose the visible eroding of the bottom rungs of the 'housing ladder' - this is, I suspect, one reason for the almost irrational urge by a small handful of bureaucrats to have our Roundhouse wiped off the map.

We only need remind ourselves of the surge in global warming, and the fact that the British ecofootprint is over three times the size of Britain (!), however, to realise that totally new and radical changes are necessary for our civilisation merely to survive.

So I urge you to take this proposal as far as you can.

Tony Wrench. 1992. Modified April 2005.

http://www.thatroundhouse.info/permacultureland.htm

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