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Planning for the Good Life; what makes for the most successful policies for self-build, off-grid, sustainable housing in the British countryside?

By

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Being a dissertation submitted to the faculty of The Built Environment as part of the requirements for the award of the MSc Housing and City Planning at University College London:

I declare that this dissertation is entirely my own work and that ideas, data and images, as well as direct quotations, drawn from elsewhere are identified and referenced.

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Contents:

1. Abstract: 4
2. Introduction
 - Context: 5
 - Aims: 6
3. Literature review
 - Rural housing development and LID policy timeline: 7
 - The rural housing debate: 9
 - The role of LID and the rural housing debate: 11
 - Current policy review: 14
4. Methodology
 - Methods and data: 16
 - Ethics statement: 18
5. Findings, analyses and result
 - Establishing if the policies truly grant permission for criteria meeting LIDs: 19
 - Policy successes and failures: Planners' perspectives: 19
 - Policy successes and failures: Applicants' perspectives: 21
 - Policy successes and failures: Gaining local people's favour: 23
 - Policy successes and failures: the development of the potential of LID housing: 25
 - Discussion: 26
 - Guidelines for LID policy makers: 27
6. Conclusion
 - The role of this dissertation: 30
 - Limitations: 30
 - Thoughts for the future: 31
7. Bibliography: 32
8. Appendices
 - Appendix 1: The full policies: 36

List of Figures:

- Figures 1a and 1b. Examples of LID: 5
- Figure 2. Rural housing development and LID policy timeline: 7
- Figure 3. Brithdir Mawr Roundhouse: 8

List of Tables (all tables by author):

- Table 1. Finding and analysis 5.1: 19
- Table 2. Analysis of findings 5.2: 21
- Table 3. Analysis of findings 5.3: 23
- Table 4. Analysis of findings 5.4: 24
- Table 5. Analysis of findings 5.5: 26

1. Abstract

This dissertation examines the successes and failures of current and past UK policy which allows for the construction of self-build, off-grid, sustainable housing in the open countryside and establishes a set of guidelines for the formation of new such policies. It explores the role of this type of housing, which has come to be called ‘low-impact development’ (LID), in the highly contentious rural housing debate, and how it is considered by LID activists, theorists and residents to provide a key answer to the rural crisis, meeting demands for affordable housing, boosting local economies, protecting the natural landscape and biodiversity and enhancing local culture. The six policies relating to LID (made by Oxford City Council, Milton Keynes Council, Pembrokeshire County Council, South Somerset District Council, the Welsh Assembly Government and Dartmoor National Park Authority) were studied using qualitative research methods to ascertain the views of all the stakeholders impacted by LID housing within their administrative boundaries; findings were collated for local authority planning representatives, LID applicants and residents and people who live locally to LIDs. A review of the successful and unsuccessful features of each policy gives rise in this dissertation to a compact set of guidelines which make recommendations for further policies pertaining to this type of housing. They could, in theory, be used by local authorities forming development plans. It concludes by finding that the policy reviews and guidelines confirm many of the views held by LID supporting writers and hopes to influence policy in this growing, ‘grassroots’ movement in the future.

2. Introduction

2.1 Context.

Crises abound in 2017: the UK housing market is ‘broken’ (DCLG, 2017), there is an urban housing crisis, a rural housing crisis, a global environmental crisis and an increasing crisis of human rights, democracy and autonomy. A fundamental dichotomy between demand and supply has sent house prices in the UK spiraling so that, the country over, many cannot afford to buy homes (National Housing Federation, 2014: 4). Pressure mounts on governments to step up insufficient actions to prevent climate change following the departure of the US from the Paris Agreement. Intense bureaucracy, regulation and corporate surveillance make it increasingly difficult to make meaningful lifestyle decisions and to live autonomously in the UK. The escalation of these crises has encouraged some people to give up on a conventional modern life that is simply not fulfilling and to live closer to the land in an attempt to attain a self-sufficient existence. Those seeking such a lifestyle, to escape a wealth-focused existence, or for a sense of autonomy, or to contribute as little as possible to the damaging of the planet, often choose to build their own houses on secluded agricultural land with natural materials, the capacity to generate their own electricity from renewable sources, and no permanent negative impact on the land. The type of dwelling that supports this lifestyle has made a name (and customary acronym) for itself in the planning register; low-impact development (LID). LID, which this dissertation makes extensive reference to, is defined by the phrase’s coiner, Simon Fairlie, pioneer of environmentally low-impact communities and scrutiniser of land rights, as ‘development which, by virtue of its low or benign environmental impact, may be allowed in locations where conventional development is not permitted’ (2009: 2). Types of LID dwellings include structures as simple as permanently pitched tents, yurts and



Figure 1a and 1b. Examples of LIDs: earth sheltered housing (Source: homeintheearth.com) and roundhouse interior (source: Amanda Jackson Photography)

benders (a frame constructed from latticed, coppiced wood draped with canvas), earth sheltered dwellings built into or under the ground, roundhouses and more conventional looking timber framed structures, such as Walter Segal styled self-build homes¹ (see figures 1a and 1b).

While obstructions to building houses, low-impact or not, in rural areas have always been numerous in the UK planning system to protect against unsustainable development (DCLG, 2012:14), with much campaigning policies have emerged that take LID seriously (Maxey, 2009c: 69). Five local authorities and the Welsh Assembly Government, have all, at different times, introduced policies that allow people to build LIDs in greenfield, open countryside on agricultural land with no previously granted planning permission for housing (Milton Keynes Council, 2005: 104, Oxford City Council, 2005: 86, Pembrokeshire County Council, 2006: 66, South Somerset District Council, 2006: 10.15, Welsh Assembly Government, 2009: 17, Dartmoor National Park, 2013: 56). However, it is apparent that people in these local authorities and in Wales still struggle to gain permission to build LIDs, with many policy compliant applications only granted permission on appeal (Fairlie, 2009: 3).

2.2 Aims

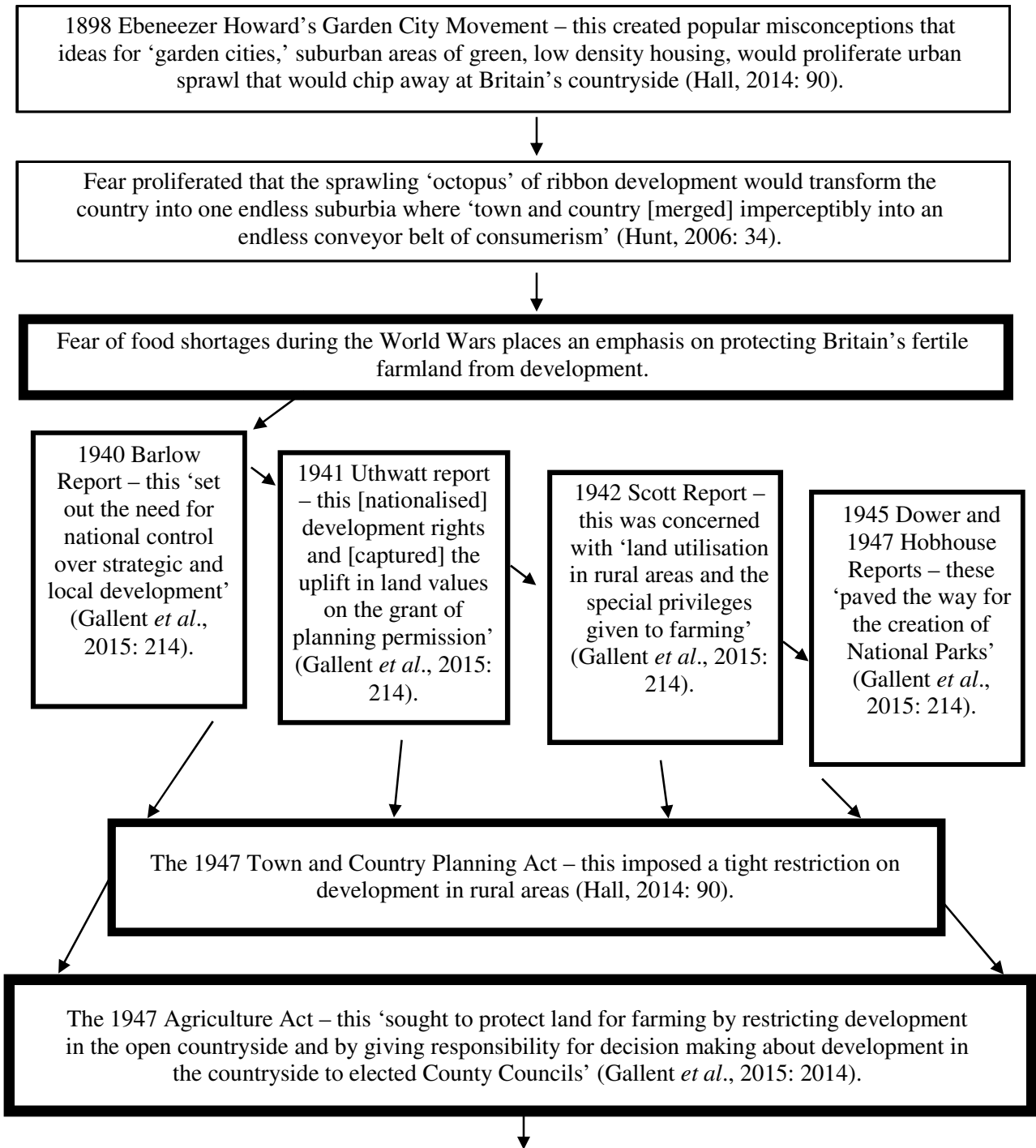
That the existing policies have not proved wholly successful and are now well-aged suggests the need for a fresh look at policy that can allow this quietly very significant movement to develop. Although there has been research into the planning barriers that obstruct LIDs and examinations of their potential, there is no comprehensive study of how the policies for LID function from the perspectives of both planners and applicants and no policy suggestions based on their successes and failures. Therefore, this research dissertation will examine both these points in one document, addressing how far the policies for LID have been effective and how they can be improved to allow further LIDs to be built. In order to establish how successful the six policies have been, this dissertation will explore how useful and in demand they are in their local authority, whether they are used correctly, how manageable the application process is for planners and applicants alike, whether they have encouraged local people to be more interested in and favorable towards LID, and whether the policies allow for the development of the potential of this type of housing. From these findings, a set of guidelines can be produced that embody all the successes and none of the failures of the previous policies, and address the needs of all the stakeholders in the

¹ This simple house design, formulated by the architect Walter Segal, consists of a timber framed, post and beam structure which can be bolted together easily with basic tools and no training required. It is 'not quite Lego, but probably as close as you can get using standard building materials' (Selfbuild Central, 2011).

hope that this could be used to influence the existing policies and other local authorities willing to incorporate LIDs into their strategy plans.

3. Literature review

3.1 Figure 2. Rural housing development policy timeline indicating the start of the LID movement (source: Author). The thicker the policy or event border, the more significant its contents.



↓

The 1972 Local Government Act – this further formalised the arrangement by giving County Councils and district and borough authorities the new responsibility of creating strategic structural and development plans that could make their own specific policies. This evolution of a hierarchy of decision makers strengthened the restriction against rural development so that ‘agricultural land [was] protected from urban encroachment’ (Gallent *et al.*, 2015: 2014).

↓

1980s and 1990s – a small number of people began to argue against this planning constraint, which did not allow them to live the environmentally low impact existence they wanted (Fairlie, 1996: 31).

↓

1997 – Brithdir Mawr in Pembrokeshire is built without planning permission and lies hidden for a year (The Land Is Ours, 2015) (see figure 3).




Figure 3. Brithdir Mawr roundhouse (source: thatroundhouse.info)

↓

1998 - Brithdir Mawr is discovered by planners and a battle to gain retrospective permission is fought (ibid.).

↓

2008 – The settlement is finally awarded planning permission in 2008 (ibid.) The case was reported in mainstream media and sparked a new wave of land rights activism and interest in low impact development.

Figure 2. Timeline showing rural housing policy history (source: author).

3.2 The rural housing debate

The ‘highly emotive issue’ of the rural housing debate (Shucksmith 1990: 1) which has emerged from the complex history of policy for rural development (see figure 2) is never more relevant than today, as the population grows and prices for houses in rural areas outstrip local incomes (National Housing Federation, 2014: 4). Whether more greenfield land should be released for housing has been debated for decades by planners, academics and house builders.

In favour of building in the open countryside is the argument that it is facing a crisis. In 2000, the Department of the Environment, Transport and the Regions (DETR) reported that a key challenge to the rural way of life was that during the previous decade, ‘the countryside suffered from depopulation as younger families left rural poverty for better opportunities in the cities’ yet now high levels of ‘in-migration’ bring ‘newcomers [who] are older and wealthier and can outbid rural residents... in the competition to buy homes’ (2000: 9). This is corroborated in much the same words by Gallent *et al.* (2015: 200). The rural population increase reported by the DETR means that ‘basic services in rural areas are overstretched,’ but that businesses still struggle to survive, with village shops closing down as a regular occurrence throughout the nation (DETR, 2000: 9). It is argued that an increase in affordable homes in the countryside, as small as ‘ten new homes in every UK village,’ would ‘solve the rural housing crisis’ (Property Wire, 2017) and contribute to encouraging the young people to move to rural areas, bringing with them investment in infrastructure and local businesses. However, there are numerous objections to new development in the countryside which form a large part of the rural housing debate.

A principle concern in this debate now, as during the post-war period, is for the loss of land for the nation’s farming and agriculture industries. Satsangi, Gallent and Bevan describe how in 1947 the ‘privilege’ generated by rural planning was ‘given to the farming sector because a significant objective at that time was to achieve food security’ (2010: 4-5). Considering this debate from a current perspective, the case for continuing to protect farm land from encroaching development in the UK has started to crumble; the Rural White Paper from 2000 states that, indubitably, ‘farming has been hit hard by change’ and that the effects of this will require change (DETR, 2000: 9). ‘As a result of global competition,’ it details, ‘farm incomes... have fallen by 60% in the last five years’ (ibid.: 9), which demonstrates that, with rapid globalisation, ‘food security’ and its emphasis on protecting agricultural land is evidently no longer a pressing concern for the UK. Crow confirms this, showing that ‘by 1957, [agricultural] production was up 60% on pre-war levels’ and this was increased still further to almost 250% in 1973, yet that between 1960 and 1973, ‘the number of farm holdings in England and Wales fell from 156,200 to 124,200’ (1990: 67). The trend of ‘increasing levels of production and productivity’ and ‘falling numbers of

farms and farm workers' (ibid.: 67) demonstrates the huge developments in farming techniques and technology that allowed less land than before to become far more productive. Additionally, the reduction in the number of farms in the UK is deepening at present: as of December 2009, 48% of the UK's food was imported from abroad (Global Food Security, 2009), a figure which has grown to more than 50% as of a study in early 2016 (The Guardian, 2016). Given this defocus on the agricultural industry, Shucksmith has commented on 'a fundamental rethinking of policies relating to... development in the countryside' which in turn have led to 'calls of private housebuilders for more greenfield sites' (1990: 1). Over the last decade in particular, it has indeed been possible to see that policy has changed to release 'post-productivist' (Gallent *et al.*, 2015: 5), formerly agricultural, land for housing (CPRE, 2013). While the Campaign to Protect Rural England (CPRE) criticises this move (2013), it can only be seen as fulfilling the idea that 'in the countryside, failure to respond to change is seldom an option... farmers cannot ignore world markets' (Garrod and Whitby, 2005: 82). It seems evident that with more land available, the desperate need for land for housing should take advantage of it.

However, further complexities exist to prevent house builders simply developing on greenfield land which is no longer required for national 'food security.' The protection of the countryside splits into concerns for biodiversity and the natural environment, and concerns for heritage and conservation. The Rural White Paper from 2000 states that as a consequence of 'development pressures [being] considerable, the environment has suffered' (DETR, 2000: 9). Building houses on greenfield land reduces the natural habitats of animal species and plants, disrupts eco systems and creates large amounts of climate damaging carbon during construction and operation (Edwards, 2010). That the building of conventional houses on greenfield land is damaging to the natural countryside is undeniable and, as such, is not heavily debated as part of the 'rural housing question'. However, it presents a major problem for planners and developers attempting to find land for new housing. Conversely, the subject of protection of the cultural countryside from development is heavily debated. In the 80s, Rogers stated that:

'policies for rural housing... are generally designed to fulfil one or more of three broad objectives: a) as an adjunct to agricultural policy; b) as a means towards wider rural development and helping the poor; c) as a vehicle for landscape protection and conservation' (1983: 124).

While all of these are still true today, Shucksmith states that in Britain the latter objective has been blown wildly out of proportion, 'placing the emphasis on the control of housing in the countryside rather than on its provision' (Shucksmith, 1990: 32) which prevents the cultural development of rural areas. The notion of the protection of the rural landscape as a middle-class phenomenon is

scattered throughout the literature on the rural housing debate. Shucksmith blames the desire for conservation on the feeling that ‘the British countryside is becoming a gentrified, middle-class countryside... [that excludes] low-and-middle income households’ (ibid.: 1). He is corroborated by Satsangi, Gallent and Bevan, who similarly describe ‘islands of gentrification, enveloped by either intensive farming or unproductive land’ (2010: 4). Another voice, Fairlie, criticises a planning system that reserves the countryside for Marie Antoinette styled ‘urban incomers’ (1996: 39), who will buy an expensive rural farm house and its land with no intention of using it as a farm, and will not allow the construction of affordable housing for native locals. The stereotype of the land-owning, South of England, National Trust enthused, ‘Conservative voters’ (Shucksmith, 1990: 12) rises time and again as a source of blame for the lack of new housing in the countryside and the erosion of local culture. The DETR instead blames ‘agricultural intensification and homogeneous development’ (despite previously reporting waning agriculture) as the suspects that ‘have diluted countryside character, eroding the diversity that makes rural England so special’ (2000: 10), an argument usually associated with the forces of gentrification not allowing new housing to be built. The Department states that the problem is exacerbated by the fact that ‘too few new houses are built in materials and styles that respect local qualities’ (ibid.: 10). While one side of the debate calls for more housing to be built and the other calls for less in the name of cultural protection, a middle ground between these two reciprocal sources of blame can be established by considering that both consider cultural change to be a key threat, whether it is in the form of copious new affordable development or gentrification.

3.3. The role of LID and the rural housing debate

If many houses new houses were constructed in a way that would kick-start UK agriculture to increase productivity on less land, support biodiversity and the natural environment, conform to local traditional architectural vernacular or make as little visual impact as possible, support local small businesses, be affordable for local average incomes and bring a new lease of life to depleting rural communities, there could be little argument from any side of the rural housing debate. LID, for many writers and theorists, holds a key potential to meet all these criteria and satisfy many rural stakeholders.

For planners and local strategists, the attempt to meet demand for sufficient affordable homes while balancing sustainability and concerns for protecting biodiversity and rural culture can, according to LID theorists, be achieved through the visually low-impact, cheap to build, zero carbon, temporary LIDs that rely on biodiversity to make a living. Pickerill and Chatterton observe that ‘ideas of localism,... sustainable communities, devolution and autonomy have [already] found their way into mainstream government and community policy debates’ (2005: 733) so have created

a space for the concept of LIDs to feature comfortably in local plans. Similarly, these styles of housing represent, according to sustainable housing theorist Maxey, ‘a superb example of sustainability being led from the grassroots’ (2009a: 8), which, it can be inferred, ensures the willingness of applicants to ensure the sustainability of their developments, rather than being obliged to by local and national regulation. LID could further help local authorities meet environmental targets as they are more effective than other forms of energy-efficient homes, argue Maxey and Dale separately. Maxey comments that government praised ecological building styles, which are intended to help meet UK zero carbon housing targets, often have large amounts of ‘embodied energy required to quarry, process, transport and dispose of... building materials’ (Maxey, 2009b: 20). Examples of this type include Passivhaus developments, which, while emitting a tenth of average house emissions, rely on copious manufactured technologies to do so, including plastic-based foamed insulation, electric ventilation systems and triple glazed windows (Passivhaus Trust, 2010). While these houses cut down operational emissions, they do not encourage their residents to make a ‘radical [lifestyle] transition to... much lower energy ways of living’ (Dale, 2009: 12). Dale adds that it is necessary to explore a type of housing that has developed technology to support such an altered lifestyle before energy resources run out and we lose the ‘economic buoyancy’ that enables technological advancement in renewable energy (ibid.: 12). It can be inferred, therefore, that it is in local authorities’ long term interests to permit LID projects, as in doing so they support the development of experimental technologies that may be essential in the future.

For developers, LID brings power of autonomy to make a meaningful lifestyle change and live as lightly as possible on the earth. That rates of self-build housing are so low in the UK compared to its European neighbours² is an indicator that, because of the fraught rural housing debate outlined previously, either local authorities or the general public do not feel confident that people should be allowed to build their own homes. Two examples of this are explored by LID activist Simon Fairlie, who writes that in 2007, the Labour government announced plans for 15 new environmentally-conscious house settlements ‘sited in the greenbelt or open countryside’ which clearly defied planning policy (2009: 1). The government argued they would be so environmentally conscious, with zero carbon homes and food provision allotments that they would constitute ‘an exception to normal planning policy,’ (ibid.: 1) the same argument used beforehand by many LID campaigners who were not permitted to build in the countryside. Similarly, largescale housebuilder Barratt Developments was permitted to build an ‘innovative’ (Barratt Developments PLC, 2015) settlement of environmentally-conscious houses, Harnham Hall, on greenbelt land in Bristol exactly where a community of citizens had been ‘campaigning for 20

² Self-build accounts for 7-10% of house construction completions in the UK currently compared to 80% in Austria (Wilson, 2017: p3)

years for the right to build an ecovillage' themselves (Fairlie, 2009: 4). Fairlie's examples demonstrate that LID self-builders feel that the planning system has little trust that citizens have good sense of judgement and has no inclination to meet people's needs unless those needs are prescribed by largescale corporations, such as Barratt. However, Garrod and Whitby comment that the general public's current classification as 'stakeholders' heralds 'the beginning of a shift in attitude away from earlier paternalistic notions of public-sector management where the "powers that be" knew what was best for the public' (2005: 76). That the statement coincides with the introduction of the earliest policies for LID (Oxford and Milton Keynes in 2005, and Pembrokeshire and South Somerset's in 2006) suggests that the shift in attitude was, and perhaps still is, picking up momentum. Therefore, LID campaigners have latched on to these apparent shifting perceptions, arguing that governmental trust in the ability of citizens to house themselves without damaging the environment must continue to grow as people become aware of their capacity to do so (Fairlie, 2009: 1).

Besides benefits to planners and developers, purveyors of LID lifestyles proclaim their benefits for the rural populace. While the Rural White Paper of 2000 states that for the rural public, 'the greatest concern is development' (DETR, 2000: 10), Fairlie argues that 'unprecedented development in the countryside has given rise to an assumption that all building is intrinsically harmful to the rural environment' (1996: 4). He argues that due to its environmental credentials, LID should not be considered in the same way as largescale conventional housebuilding and that planning authorities should 'make it relatively easy to obtain planning permission for low impact sustainable buildings, and correspondingly difficult to obtain permission for high impact unsustainable ones' (ibid.: 51) which would even out concerns from the general public; more visually low-impact houses which increase biodiversity should bring little concern for the public if they lower the number of high-impact, largescale housing developments. In terms of the rural crisis, Maxey makes grand claims that LID can restore vitality and thriving local economies to the countryside. He comments that 'LID can help turn current social trends into powerful, practical forces for change' citing that 'since 2005, for example, the UK has seen an exponential rise in interest in local, seasonal, organic and home grown food, green lifestyles and global ethics' (2009b: 18-19), interests that are central to the LID philosophy. This claim is still relevant today, demonstrable by, amongst very many possible examples, the facts that veganism in Britain increasing 360% over the last decade (Quinn, 2016) and that the most recent Ethical Consumer Markets Report notes an 8.5% growth in the ethical consumables market throughout 2015 alone (Ethical Consumer Magazine, 2016: 4). Maxey claims that this current trend attracts especially young people to the countryside and to the idea of land-based businesses with the desire to live as ethically as possible (2009b: 19). That LID helps to deliver this desire is the pinnacle in Maxey's idea that by furthering policy for LID, a new, environmentally-minded population with its own

land-based economy would grow in the countryside, re-filling its emptying areas, rejuvenating its aging population and patronising its various businesses. The claims made by this LID theorist are backed up by academics Gallent *et al.* who state that to ‘lever community gains’ local authorities attempt to find ‘ways to diversify rural economies, often by permitting new forms of development’ (2015: 7), LID matching both these methods to help soothe the rural crisis.

3.4 Current policy review

Despite these all-round benefits of LID, it is still early days for the movement and allowances for this type of housing remain scarce in the British planning system. The NPPF puts a great emphasis on sustainability, with its opening declaration that ‘the purpose of planning is to help achieve sustainable development’ (DCLG, 2012: i) and its following assertion of the role of planning in helping the UK move ‘to a low carbon economy’ (ibid.: 2). While LIDs conform to the NPPF’s vision for a sustainable built environment and rural regeneration, the movement is still young enough and minority enough that the NPPF does not make mention of this specific type of housing, except to state that new housing development in the open countryside should not usually be permitted (ibid.: 14). This leaves the responsibility for decisions regarding LID up to individual local authorities and their local plans. Below are all the policies, six in total, that have been introduced to make an exception to the rule by allowing LIDs in the open countryside (the full policies and their criteria are attached as Appendix 1):

- Oxford City Council’s 2005 Local Plan included the housing policy 7.12 that low impact development could attain lengthy temporary planning permission including on rural sites ‘that would otherwise be considered unsuitable for housing development,’ due to the non-permanent nature of the structures (p86).
- Milton Keynes Council adopted policy H11 in its 2005 local plan with the aim of allowing ‘only the most innovative and sustainable proposals for low impact dwellings in the open countryside’ (p104).
- Pembrokeshire County Council introduced into their Joint Unitary Development Plan for Pembrokeshire (2006) Policy 52, whereby ‘low impact development that makes a positive contribution... is well integrated into the landscape... [and] is tied directly to the land on which it is located’ will only be permitted (p66).
- South Somerset District Council’s local plan from 2006 included policy HG12 which recognises that ‘this form of dwelling does not have the environmental or visual impact of

conventional housing and can be considered as a sustainable means of providing accommodation... without causing demonstrable harm' (p10.15).

- The Welsh Assembly Government introduced in 2009 its One Wales: One Planet sustainable development scheme, aiming to see Wales' 'ecological footprint reduced to the global average availability of resources - 1.88 global hectares per person... within the lifetime of a generation' (p17). This scheme proposes that low impact development be actively encouraged throughout Wales, and so provides a countrywide favourability towards applications for this type of housing, providing they meet criteria.
- Dartmoor National Park local authority adopted policy DMD30 in their 2013 Development Management and Delivery Plan Document, which allows proposals 'that will make a positive environmental, and/or social and economic contribution... granted initially on a temporary basis [only]' (p60).

Although each of these local authorities and the Welsh Assembly's One Planet Development Scheme have undeniably made contributions to the cause of low impact development, it is unclear whether the policies are truly working as they should, as low impact small holders continue to struggle for their right to pursue their lifestyle choice (Fairlie, 2009: 3).

4. Methodology

4.1 Methods and data

To ascertain the success of the six policies and to write a set of guidelines for the optimum policy for LID that satisfies all stakeholders, a case study based method producing primary, qualitative data was used. The use of qualitative data was necessary as meeting the objectives relied on obtaining opinions. For each of the six policies, a case study development from the relevant local authority was chosen to compare the experiences of both planners and applicants. The case studies were chosen by researching into the permitted and refused LIDs in each local authority and choosing the development which received the highest profile and level of media coverage, since it was likely to mean that the owners were willing to answer questions about their experiences if they have previously welcomed interviews or studies on their dwelling. This also prevented the disturbance of those who prefer to live privately and ensured that a good supply of information about the development was available. The case studies chosen were:

- Bow Brickhill for Milton Keynes: a largescale, earth-sheltered dwelling that was not self-build or self-designed and presents a different interpretation of the term LID.
- Lammas Ecovillage for Pembrokeshire: a thriving collection of nine smallholdings which has become very well known amongst those seeking alternative lifestyles.
- Plotgate Venture for South Somerset: an example of LID in very early stages, currently undergoing application for the construction of houses on farmland.
- Rhiw Las for Wales' OPD policy: a collection of four LID houses currently undergoing construction after recently gaining planning permission.
- Steward Woodland Community for Dartmoor National Park: a community based in woodland, which has recently been refused temporary planning permission extension for their cabin-style dwellings.
- Oxford City Council received no applications for LID developments

For the first objective (whether they actually do their job of granting permission for sustainable LIDs), it was simply examined whether the policy is still in use and the reasons why

not where this was applicable, using answers collected from emailed surveys sent to the local authority planning departments.

The second and third objectives, finding out what parts of the policies were considered to be positive and negative by planners and applicants respectively, were met by interviewing both these stakeholders. Whilst visiting each of the developments and conducting interviews for all the local authorities and applicants would have produced a greater amount of results, due to the length restraints of this dissertation this was not possible. Therefore, from the analysis of the results from the first tests, the developments in the local authorities with the most successful policies were chosen for visitation, as this would be most helpful in the final guideline formulation. These were Lammas, Rhiw Las and Steward Woodland Community. Unfortunately, no response to interview requests was received from the applicants at the latter of these. Four days were spent visiting Lammas and Rhiw Las in Wales and observing how LID fitted into the pre-existing local culture.³ At Lammas, a tour of the communal site and one LID house was undertaken, three hours were spent gaining an understanding of how the permaculture projects worked and how the self-build dwellings interacted with the landscape, and an interview was conducted with a resident. Two days were spent at Rhiw Las interviewing an applicant and several volunteers, and helping with the building of the first straw bale house on site. Observing and undertaking part of the straw-bale building process first-hand gave a crucial understanding of the materials, construction methods and scale of work required by LID housing. Interviews of roughly 45 minutes each were conducted by telephone with planning representatives for Policy 52 and Wales' OPD policy. Unfortunately, no interview could be scheduled with a planning representative from Dartmoor. Two separate pro-formae of questions were used for the planners and the applicants. All interviews conducted in person were recorded and later transcribed and all interviews by telephone were transcribed in shorthand at the time, then written up fully afterwards.

Public favourability to the developments and whether the local populace was willing to welcome further LIDs in their area were established by reading media articles pertaining to the developments, since often these contained interviews or comments from neighbours. Where comments from the local public had been made on the planning applications for each development, these were also examined. During the field work in Wales, staying in a village near Lammas allowed for the interviewing of a local couple to ascertain local, native views of LIDs in their area.

Whether the policies allowed for the potential of LID housing (soothing the rural crisis and developing essential zero-carbon technologies) to be fully explored was established through

³ A risk assessment form for this field work is attached as Appendix 2.

interviews with one applicant each from Lammas and Rhiw Las, the planning representatives for Pembrokeshire and Carmarthenshire, the email replies from planners in the remaining local authorities.

The findings were compared with the views explored in the literature review, and finally, the analyses were used to script a set of policy guidelines which could be used to influence local plans leaning towards permitting LIDs or current policies as a form of clarification.

4.2 Ethics Statement:

The focus of this study on private self-build housing means that the subject is inherently personal to the applicants and residents. Interviews conducted were likely to yield responses that could include personal information, such as the costs of the venture, personal reasons for living a low-impact lifestyle, and the relation of planning experiences that could lead to the identification of the interviewee. The relation of these during interview might also have caused the interviewee distress or anxiety. The research therefore necessitated sensitive interview methods, which are covered in the risk assessment form (appendix 2). That the interviewees were comfortable answering the questions was ensured at all times, their consent to use their answers as results in this dissertation was obtained and all answers given were kept strictly anonymised.

5. Findings, analyses and result

5.1 Establishing if the policies truly grant permission for criteria meeting LIDs

Table 1. Findings and analysis 5.1

| Findings: Are the policies still in use? | | | | | |
|--|--|--|--|----------------------------|--------------------------------|
| Oxford City Council's HS.18 | Milton Keynes' H11 | South Somerset's HG12 | Pemb.'s Policy 52 | Welsh Assembly Govt.'s OPD | Dartmoor National Park's DMD30 |
| No | No | No | No | Yes | Yes |
| Reasons why not | | | | | |
| No demand: no applications received whatsoever (Planner, Oxford) | 'Open to misinterpretation and not well used' (Planner, Milton Keynes) | Considered to be 'replaced by paragraph 55 of the NPPF' (Planner, South Somerset) | Made redundant as replaced by Welsh Assembly Govt.'s OPD policy. | | |
| Analysis: Can they be considered successful? | | | | | |
| x | x | x | ✓ | ✓ | ✓ |
| Reasons why not | | | | | |
| Not relevant to the local authority: described allowing LIDs in the open countryside without having any open countryside within administrative boundaries. | Not well understood by planners which allowed for the construction of a non-self-build, non-locally sourced, house with no land-based business to be granted permission (Bow Brickhill). | No other local authority cited this as a problem and Dartmoor still has a functioning LID policy. It can be inferred that the policy was unwelcome or did not function well. | | | |

5.2 Policy successes and failures: Planners' perspectives

Findings:

The problem for planners in Pembrokeshire confronted with applications under Policy 52 (before it became redundant) was that there was no 'detailed information or guidance documents' to help explain the policy in detail, since the planners felt they were not experienced enough to deal with the unfamiliar subject without guidance (Senior planning representative, Pembrokeshire).

It also clashed with another of Pembrokeshire's policies that building in the open countryside is forbidden except in cases of 'justified need' as it did not explicitly state that it was an exception to the usual rule, which occasionally caused confusion in the department (Senior planning representative, Pembrokeshire).

In contrast, its successor, the OPD policy, is accompanied by 'lots of good information' (Planner, Carmarthenshire), comprising both 'policy and advice' (Senior planning representative, Pembrokeshire, and Planner, Carmarthenshire), with planning staff from the two different local authorities agreeing on its useful level of detail. The senior planning representative from Pembrokeshire stated of the OPD policy that 'sometimes parts are vaguely phrased, but you get around that by relying on past experiences and generally your confidence grows when dealing with unexplained and unfamiliar things.' Similarly, the pre-existing methods of classifying development types by size which existed in Carmarthenshire County Council was described by the applicant for OPD compliant Rhiw Las as counter-productive in the case of OPD houses, since individual houses could be classified as 'major developments' (the same category as 'housing estates or supermarkets') because they were sited on a very large plot (Applicant, Rhiw Las). One of Carmarthenshire's planning officers had apparently confirmed that this created bureaucratic problems and confusion in the planning department (Applicant, Rhiw Las).

The main problem identified by the two planners, relating to both Policy 52 and the OPD policy, was the difficulty of dealing with applications at committee with locally elected councillors. The planner from Carmarthenshire County Council stated that local politics do not 'make space for much change,' and that the councillors have rejected the OPD policy as having not the interests of the local countryside at heart but rather the interests of English city dwellers in search of a bucolic playground. He added that while the council planners were capable of adjusting their skills to a new type of application and being more 'analytical and scrupulous' when considering OPD houses, definite training and education was required for the local councillors (Planner, Carmarthenshire). The Pembrokeshire planning representative confirmed this, but also stated that to make the most of the opportunities the policy provides people, planners as well as councillors needed 'more expertise' in the form of training to ensure that applications could be handled smoothly.

Analysis:

Table 2. Analysis for Findings 5.2

| Problems | Successes | Solutions |
|--|---|--|
| <ul style="list-style-type: none"> - Lack of understanding by local councillors, planners reply heavily on written guidance. - Unclear wording sometimes leads to uncertainty. | <ul style="list-style-type: none"> - Detailed OPD policy guidance. | <ul style="list-style-type: none"> -Provide copious guidance documentation which defines and describes LID and highlights the requirements for applications. -Provide a compulsory training period for planning officers, policy makers and local councillors to help with understanding of the concept of LID and its benefits. |

5.3 Policy successes and failures: Applicants’ perspectives

Findings:

In Pembrokeshire, the experienced LID resident from Lammas interviewed confirmed how it took three years to write the planning application for Lammas and stated that it costs around £5000 in total to make an application (Lammas, 2014 (online) and interview from resident, Lammas). He also described the ‘onerous’ task of completing the management plan, which requires that an applicant estimate how much of everything the plot (which includes people, livestock, pets, visitors, the house itself and outbuildings) will consume. However, he defended this level of expense and complexity, as it ensures that ‘only the dedicated go through with it’ (Resident, Lammas). Arguing against the assumption that the management plan is unnecessary and invasive, he stated that:

‘it’s understandable... the council let us live in the open countryside, building on land bought at agricultural rates so they want to know that we really are dedicated to this way of living and have thought it through’ (Resident, Lammas).

In addition, the management plan requested by the council at application stage and each year since has turned out unexpectedly to be a useful source of ‘very helpful hard data’ for the plot holders at Lammas, recording everything the land has produced which is useful for planning further planting and business growth in the future. The Policy 52 targets of obtaining 75% of one’s daily needs from the land ensures continuous motivation at Lammas, and the targets are ‘flexible enough to allow for reasonable negotiation with the council’ who can be inclined to be ‘lenient’ if targets are not met, as long as adequate reasons are given (Resident, Lammas).

For Rhiw Las, besides the cost of having surveys conducted, the cost of the application was not considered a problem. According to one of the applicants, the management plan took a long time to write but was entirely feasible. They stated that their management plan was ‘the most compact that [they] have seen... many others are far too detailed and personal’ (Applicant, Rhiw Las). While for him the OPD policy itself is ‘very clear and well phrased’ (Applicant, Rhiw Las), the Lammas self-builder was concerned that it made no provision for retirement, not stating whether targets would be eased or not (Resident, Lammas).

The applicant from Rhiw Las corroborated the planners with the claim that the elected local councillors did not understand the policy. He described how, at committee, the councillors clearly had not read their application before deciding to refuse it on the grounds that it was not in a sustainable location and how they did not know the about the management plan which proved the scheme’s sustainability (Applicant, Rhiw Las). The self-builder described the local councillors as the single obstruction to working OPD policy, claiming them to be:

‘70-80-year-old retired farmers set on keeping things as they are. They’re arguably very incompetent, which is why we got costs⁴. They’ve spent years in the past seeing their friends and family trying to get permission to build bungalows on their family farms with little luck and so they’re frustrated that invaders, as they see us, can come in from the outside and build on land they’ve never been allowed to’ (Applicant, Rhiw Las).

For the experienced self-builder at Lammas, local politics also presented the main challenge to the success of Policy 52 when it still existed. Of local councillors, he referred to a local ‘cultural resistance... that force that tries to maintain the system or the status quo as it is and is quite fearful of change, particularly radical change’ (Resident, Lammas) in the form of LID.

⁴ The applicants were rewarded the costs of their case going to appeal on the grounds of insufficient justification of refusal by the councillors, which is highly unusual for small scale self-build developments (Applicant, Rhiw Las).

Analysis:

Table 3. Analysis for Findings 5.3

| Problems | Successes | Solutions |
|---|--|--|
| <ul style="list-style-type: none"> - Policies do not cover what happens to targets during retirement. - Local councillors do not welcome new development. | <ul style="list-style-type: none"> - Management plans feasible and useful. - Rigorous application requirements not too burdensome. | <ul style="list-style-type: none"> - Retain rigorous application process. - Retain management plans and targets. - Ensure that policies cover what should happen to LID targets during retirement. - Ensure that targets are flexible and can take account of adequate reasons why they have not been met. - Provide guidance and training for local councillors. |

5.4 Policy successes and failures: Gaining local people’s favour

Findings:

In Milton Keynes, Bow Brickhill House was very unwelcome to neighbours, who complained that it was unsuited to the area and ill-placed, citing the unsuitability of the site for delivery lorries and large numbers of builders and concerns for wildlife (Public Representations document for the Bow Brickhill application, reference: 08/01721/FUL). The letter from a collection of neighbours complained that the house was ‘yet another attempt to try to push an inadequately planned “ECO House” (sic.) through the planning system’ (Public Representations document, application reference 08/01721/FUL, 2012). Although the house was clearly not a true LID, not being self-build or made from a majority of natural materials, containing a ‘car shelter and ancillary office,’ and having no hint of any land-based business planned (Decision Notice, 08/01721/FUL, 2008), it is assumed that this house made people no more favourable of the cause for environmentally low-impact housing or keen to keep Policy H11 which allowed this faux LID to be built.

Pembrokeshire’s Policy 52 contained the requirement that any applications for LID had to ‘make a positive... social and/or economic contribution with public benefit’ (Pembrokeshire County Council, 2006: 66). The applicants at Lammas addressed this stating that the project would ‘play an important role in... [supporting] a localised land-based economy’ and support students and academics (Lammas Low Impact Initiatives Ltd, 2008: 4). Currently, as described by the planning representative from Pembrokeshire (a source entirely independent from Lammas), the local community is supportive of the areas identity as a ‘hub for those seeking to build low impact houses.’ Lammas runs tours which are becoming increasingly popular with as many as thirty people attending a tour in peak tourist months, with environmentally-conscious visitors patronising

local businesses in small enough numbers not to disrupt the character of the neighbouring countryside (Resident, Lammas). A local couple who live fifteen minutes' drive away from Lammas and one of whom is a native of southern Pembrokeshire, having been born and brought up in the area, when interviewed spoke about how they enjoyed having the area associated with the 'innovative' community, stating that it brought a 'freshness and interest' to a quiet, rural population and a new kind of tourism to the area (Local couple, Narberth). After the success of Lammas and Policy 52, the popularity of Pembrokeshire as a location for building LIDs has raised land prices in the area (Resident, Lammas), since any suitable area of agricultural land could, in theory, receive planning permission for a LID house. This is both positive for local people, as it makes their land more valuable, yet also inflates prices for those looking to buy.

While OPD policy does not explicitly require that new developments provide benefits for the community, an essential part of the application is an 'assessment to identify potential impacts on the host community (both positive and negative) and... a plan to implement any mitigation measures' (Welsh Assembly Government, 2010: 25). The Rhiw Las applicant was emphatic that the development, and future OPD developments, would be helpful to the local community in the long term in helping to combat the rural economic crisis, and thus inspire their favour towards LID projects. He stated that:

'OPDs bring new jobs and new people to liven up a struggling rural area... Projects involve architects, planners, surveys, buying local materials, help with construction; it involves so many people who help bring life to a flagging local economy' (Applicant, Rhiw Las).

However, he added that local people generally felt indifference to the project, not showing any interest in the application or the subject of LIDs in general. He summed this up stating that 'as a rule, [local people] just don't care what you build as long as it's not in their back garden' (Applicant, Rhiw Las).

Analysis:

Table 4. Analysis for Findings 5.4

| Problems | Successes | Solutions |
|---|--|--|
| - Some local people unfavourable towards new development in their area. | - Some local people welcome new development, especially if it brings vitality and new business to an area. | - A specific planning condition should be included that ensures that the scheme proposed contributes to the local community. - Policies should also make clear that the aesthetics of the house are approved by neighbours. |

5.5 Policy successes and failures: the development of the potential of LID housing

Findings:

The self-builder interviewed at Rhiw Las was very enthusiastic that the OPD policy, which permits the building of structures more complex than those permitted by Policy 52⁵ and allows for the construction of houses that look entirely conventional, despite having much higher sustainability credentials. He claimed that this means that conventional-looking straw-bale houses could be built, especially by housing associations as a means of providing affordable housing with very low construction and operation costs (Applicant, Rhiw Las). This sentiment was corroborated by the planner for Carmarthenshire County Council, who agreed that OPD policy allowing this type of housing ‘certainly had potential to make it something quite mainstream since construction and maintenance costs are so low.’ In contrast, the senior planning representative in Pembrokeshire had reservations that OPD policy could not be a means of meeting affordable housing targets, as OPD houses in their current form are still unfamiliar and not trustworthy as places that most people would want to live in (Senior planning representative, Pembrokeshire). In the wake of the Grenfell Tower tragedy⁶, fire safety is paramount for housing associations and understandably straw would be a concerning building material (the Rhiw Las self-builder countered this argument citing numerous studies which prove the fact that baled, compressed straw, such as that used in his house, does not burn⁷). At Lammas, the self-builder interviewed expressed hope for the possibilities brought by the flexibility of the OPD policy, in that it allows for both conventional and unconventional constructs (Resident, Lammas).

The Rhiw Las self-builder criticised Policy 52’s more rigorous requirements for construction than the OPD policy, stating that the simple, unconventional structures at Lammas in some ways have ‘done more harm than good. People don’t think [low-impact housing] can be mainstream. They associate it with hobbit houses that barely scrape by building regulations’ (Applicant, Rhiw Las). That a Lammas roundhouse featured on *Grand Designs*⁸ was positive in that it brought awareness about low impact lifestyles to a nation-wide audience, but also quite damaging, he maintained, as it showed an ‘unrealistic expectation of what low-impact houses have to be like’ (Applicant, Rhiw Las). A volunteer working on the Rhiw Las site disagreed, stating that conventional looking houses ‘don’t grab attention or inspire any interest in OPD. It’s the hobbit

⁵ This policy required, amongst other exemplar criteria, that a development should ‘be capable of being easily dismantled and removed from the site’ (Pembrokeshire County Council, 2006: 66).

⁶ The Grenfell Tower in North London suffered a tragic fire on the 14th June 2017, destroying 151 homes and taking many lives (BBC, 2017).

⁷ This is confirmed by numerous examples given in *The Straw Bale House* (Steen, Steen and Bainbridge, 1994: 42)

⁸ Series 17, Episode 6.

house aesthetic that gets people interested in the first place' (Volunteer builder, Rhiw Las). He stated that the policy's encouragement of a different aesthetic through its strict requirements help spread the concept of re-establishing what houses are for, as highly personal, not marketability-driven spaces for individuals and families and their livelihoods.

Analysis:

Table 5. Analysis for Findings 5.5

| Problems | Successes | Solutions |
|--|---|---|
| - Inflexible structural requirements make LID development unappealing to the mainstream. | - Flexible structural allowances allow LID to take a more conventional shape if desired, which can make the housing type more mainstream. | - Ensure policies are flexible in their allowances for structure style and materials. |

5.6 Discussion

These results can be compared to the thoughts of scholars in the field of LID who have contributed to the study of what would make for the optimum LID policy, both corroborating and challenging their theories. They confirm the view held by Simon Fairlie that in order for policies for LID to work, they have to be specific in the detail of their requirements (Fairlie, 1996: 55). However, the results and analyses show that optimum policies for LID should go far beyond the in fact paltry detail offered by Fairlie in his proposed criteria that a permitted development should be one that:

- '- is temporary;
- is small-scale;
- is unobtrusive;
- is made from predominately 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.' (ibid.: 55)

While this proposed set of criteria assumes a sensitive applicant who would not abuse a loose set of rules, the reality of this sparse regulation could lay greenfield countryside open to exactly the sort

of metamorphosed 'bijoux bungalows for commuters... [which start as] fairly innocuous or sensitive development linked to an organic smallholding' (ibid.: 114) which Fairlie earlier condemns, and, according to the findings above, would be confusing for planners and councillors since it is very open to personal interpretation. It makes no mention of the importance of the contribution to community benefit that a development should make to enhance local favour towards LID projects, even if it specifies its environmental benefit. This perhaps dates the proposal, showing its age from the mid-90s when developers of any scale did not have the responsibility of community enhancement that they have been given today. Maxey agrees that 'clear policies are required' and that 'the greatest step forward to date is Policy 52' (Maxey, 2009c: 68-9). This implies that the level of compliance required by Pembrokeshire's policy is the best measure of how strict the optimum policy should be. However, he later states that 'the current wording and application of Policy 52 is too restrictive and there remains a need for more forward thinking, appropriate LID policy' (ibid.: 69), not proffering any example of his own. As the findings above show, the successful applicants at Lammas found the strictness of the policy to be helpful in fact. Therefore, the findings show that, in contrast to Maxey's sentiment that policies for LID should be looser, they could in fact be made tighter to ensure sustainability, with precise targets given for how locally the materials used must be sourced, for levels of self-sufficiency, and the biodiversity benefits of the land-based business run from the site.

5.7 Guidelines for LID policy makers

These results and analyses show that it is relevance to the area, specific wording, the level of comprehension in a local authority, the difficult application process to ensure only dedicated applicants, the attitude of the local people and the openness within restricted criteria for design and materials useable that ensures the success of policies for LID in a rural area. A set of guidelines for LID policy creation, which are flexible enough to allow local authorities to decide elements for themselves, can be drawn up as such:

1. Before making a policy for LID, local authorities should firstly establish whether there is **sufficient demand for this type of development** within their administrative boundaries. It is possible that policies can fall at this most basic hurdle; ensure above all that if the policy refers to the construction of low impact dwellings in the open countryside, there is open countryside within the local authority in question.
2. **Wording** should be scrupulously clear and decisive, numerical sustainability targets should be set for construction, energy generation and levels of self-sufficiency, for example: '65% of the materials used for construction must be sourced from within twenty

miles of the development site, 10% of these must be sourced from the site itself. 100% of energy needed to operate the dwelling will be generated from renewable sources on site. 75% of consumption-related daily needs must be gained from the land. Proof that this is possible must be given at application stage.’ This avoids any confusion for planners and local councillors, gives applicants a clear target to aim for, and avoids any applicants abusing LID policy to build homes that may not be truly sustainable.

3. Policies must ensure that the development will be sustainable and will be continuously sustainable:

- They must have a condition requiring a biodiversity-boosting, land-based business to be run from the site along the lines of farming, coppicing and natural material produce (which generates enough profit to form a significant part of the household income, also given in a numerical target. For example: ‘land based businesses must generate at least 50% of household income’).

- A management plan must be submitted with the application that outlines the plans for planting, projected harvests and projected income for the first few years of the development’s existence. It should estimate the consumption-related daily needs of the household and illustrate how local-authority decided self-sufficiency targets can be met.

- Local authority decided production targets should be set each year for a lengthy period of time, but not indefinitely, to ensure that the venture is truly sustainable, but also giving eventual autonomy to the residents, for example a term of 20 years. This means that production can be slowed without reprimand as the residents age, and allows for retirement from business. Policies should state that succinct and clear account must be submitted each year to show that production targets have been met.

- The policy must make a clear statement about the allowance for annual targets to be negotiated in the case that they are not met when adequate reasons are supplied.

4. Policies should clearly state that buildings constructed must be visually low-impact, and visually submissive in a landscape, whether that takes the form of disguising the dwelling through earth sheltering, grass roofs, or retaining a conventional shape to blend in with nearby settlements. If the site lies within a panorama from a certain view point, a plan should be attached to the application indicating how the dwelling will not impact this view and will either be disguised or mimic local vernacular.

- Local authorities could also include a condition that applications will only be permitted if buildings use architectural styles traditional to the area in which they are sited.

- Local authorities should not produce a list of structures permitted as this creates inflexibility.

5. Policies should include a specific condition that LIDs must **provide benefits for their local communities** beyond those provided by Section 106 Agreements. Suggestions include benefits that encourage sustainable living, for example: holding an annual open day to educate local people about LID lifestyles, providing advice about permaculture, self-sufficiency, gardening or self-build to the local community on a semi-regular basis (perhaps quarterly workshops) or ensuring that the land-based business venture provides a service to the local community specifically. These should be tailored to the needs or interests of the local community in question, and perhaps subject to a publically-open consultation session.

6. If policy for LID has an increased rate of take-up in local authorities, **a single, specific national guidance note document** that describes LID and all its criteria in detail, gives case study examples of exemplary schemes and describes the planning process step-by-step should be produced. This will ensure that all parties involved are aware of LID as a concept and will establish this type of housing as an exception to usually frowned-upon housing development in the open countryside.

7. In addition to a guidance document, each local authority should, on the introduction of a policy for LID, establish **a short training period devoted to understanding LID applications** and why the type of housing should be considered differently to conventional house building in the open countryside. This should be compulsory for planning officers, local plan makers and locally elected councillors in particular.

6. Conclusion

6.1 The role of this dissertation

This study has explored the successes and failings of the six policies that allow (or allowed) for permitted LID in the open countryside, and has been the first to combine its findings to form a set of guidelines which could be used to influence further policy formulation, or to clarify pre-existing policies. It has outlined the potential of the growing niche that LID has made for itself as an important ‘grassroots’ movement (Maxey, 2009a: 8) in the rural housing debate. Although the developments examined are all still in relatively early days, the findings collected, in relation to Lammas and Rhiw Las in particular, corroborate writers who state that this type of dwelling has the potential to perhaps not entirely solve, but to certainly soothe the rural crisis. Permitting LIDs alters the balance of ‘in-migration’ to the countryside away from ‘newcomers [who] are older and wealthier and can outbid rural residents’ for homes (DETR, 2000: 9), shown by the youth and family-oriented nature of the applicants interviewed; LID does indeed bring new and young people to the countryside to actively partake in the rural economy, as opposed to the large number of those who retire to it. While farming in the UK has dwindled, with many farm workers losing jobs as agriculture moves away from the many individual farms of yesteryear towards largescale industrial farming, the necessity having a land-based business as a part of LID dictated by policies helps to counteract this movement, seen at Lammas and Rhiw Las by the large number of volunteer workers. The importance of this boost to small scale farming practises, which in particular is beneficial for biodiversity, has been preserved and emphasised in the policy guidelines produced. The argument for the cultural protection of the countryside which features as a major and essential obstruction to unsustainable development in countryside in the rural housing debate has been recognised also in the policy guidelines produced by highlighting the importance that LID structures are visually low-impact, such as those at Lammas, or mimic local architectural vernacular, such as those at Rhiw Las. This satisfies all sides of the debate; the guidelines show that affordable housing can be built along the wishes of those arguing that the countryside has become ‘gentrified’ and ‘museumified’ (Shucksmith, 1990; Satsangi, Gallent and Bevan (2010); Fairlie (1996)), and along the wishes of those who fear the erosion of local character by ‘homogeneous development’ (DETR, 2000: 10).

6.2 Limitations

Unfortunately, this dissertation was limited in terms of length, timing, funding and ability to gather research from developments and planners representative of all six policies. It would have been beneficial for the policy reviews and the scripting of the policy guidelines to have a greater

range of experiences from planners and applicants in a greater range of places, although it is predicted that the final guideline result would have been much the same if further research had been conducted.

6.3 Thoughts for the future

There may be some that argue that it is unacceptable to expect those searching for affordable housing to have to build their own houses. This underestimation of people's abilities does not take into account that this type of housing offers not only a truly sustainable way of life in a society that has not yet realised the dramatic lifestyle changes that must be made to counteract climate change, cheaper construction and maintenance costs for the household and the provision of employment but also a sense of purpose in times when depression and mental wellbeing are at a distinct low, as recorded by the Office for National Statistics (Hinde, 2016)⁹ (it is entirely recognised that this, unfortunately, cannot always apply for those who have disabilities that might prevent self-build). The concept of expanding the use of LID into more mainstream development perhaps used by housing associations certainly merits further study, as does the idea that funding could be supplied to those choosing to build this type of housing in lieu of applying for social housing. For this, the successes and failings of specific LIDs should be monitored in various detailed studies to produce descriptions of the best LID technologies, constructions and business models to help and encourage those considering adopting a low-impact lifestyle.

The findings from this study have shown that LID has the capacity to become a very important movement in the future, since it solves many of the problems raised in the rural housing debate, and that it is a quietly growing movement that requires carefully formulated policies to help it grow. They confirm the prediction given by Simon Fairlie that 'changes tend to begin at the margins of society: the organic farmers who thirty years ago were regarded as cranks are now given grants by the MAFF; the 'alternative technology' pursued by hippies in the early seventies has now become 'renewable energy' ... The advocates of low-impact land use may be few at the moment, but they should be listened to' (1996: 127). Hopefully, the guidelines scripted in this dissertation from the findings of the policy reviews can contribute to the movement that will carry this type of development into mainstream policy, where they might help to 'enable the planners, environmentalists and country dwellers of the next millennium to co-operate in the creation of a genuinely sustainable rural economy and environment' (ibid.: 129).

⁹ This argument is supported by the claim made by a university study that 'living in the country is better for your mental health than being a city-dweller' (BBC, 2006).

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8. Appendices

8.1 Appendix 1: The Policies for LID

Oxford City Council HS18 (Oxford City Council, 2005: 86)

'7.12.1 'Low-impact housing' means it is designed to minimise the environmental consequences of its construction and occupation. This means that the construction materials are natural products and available locally. These dwellings are usually self-built. They are not intended to be permanent accommodation, but may exist for a number of years. They are unlikely to be connected to the full set of services. The limited impact of this type of housing may allow temporary planning permission to be granted on a site that would otherwise be considered unsuitable for housing development.

POLICY HS.18 - LOW-IMPACT HOUSING

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.'

Milton Keynes Council Policy H11 (Milton Keynes Council, 2005: 104)

'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.

A management plan should normally have

3 sections:

- a thorough description of the site;
- an evaluation of the site, including a set of management objectives
- a prescription of the work necessary to achieve the objectives'

Pembrokeshire County Council Policy 52 (Pembrokeshire County Council, 2006: 66)

'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, co-operative or other similar mechanism in which the occupiers have an interest.'

South Somerset District Council HG12 (South Somerset District Council, 2006: 10.15)

‘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.

Welsh National Government: One Planet Development policy (Welsh Assembly Government, 2009: 17)

‘One Planet Development is development that through its low impact either enhances or does not significantly diminish environmental quality. One Planet Development is potentially an exemplar type of sustainable development. One Planet Developments should initially achieve an ecological footprint of 2.4 global hectares per person or less in terms of consumption and demonstrate clear potential to move towards 1.88 global hectare target over time. They should also be zero carbon in both construction and use.

4.15.2 One Planet Developments may take a number of forms. They can either be single homes, co-operative communities or larger settlements. They may be located within or adjacent to existing settlements, or be situated in the open countryside. Where One Planet Developments involve members of more than one family, the proposal should be managed and controlled by a trust, co-operative or other similar mechanism in which the occupiers have an interest. Land based One

Planet Developments located in the open countryside should, over a reasonable length of time (no more than 5 years), provide for the minimum needs of the inhabitants' in terms of income, food, energy and waste assimilation. Where this cannot be demonstrated, they should be considered against policies which seek to control development in the open countryside.

[...] 4.23 Planning obligations and conditions

4.23.1 Where planning consent is granted for One Planet Developments it will be necessary to tie the management plan directly to a planning condition or S106 agreement. This will provide control over all of the activities agreed in the permission. A S106 agreement should also be used to tie the dwellings to the land which justified the grant of planning consent. Where there is a change in ownership of the One Planet Development or any individual holding within larger schemes, a new management plan should be submitted to the planning authority for approval.

4.23.2 An annual monitoring report should be submitted to the planning authority to evidence compliance with the management plan by identifying activities carried out during the previous twelve months. Failure to meet the terms of the management plan could result in enforcement proceedings in respect of a breach of condition subject to which planning permission was granted.'

Dartmoor National Park Authority DMD30 (Dartmoor National Park, 2013: 56)

'Policy DMD30: Low impact residential development in the open countryside

Low impact residential development in the open countryside will only be permitted where:

- (i) the proposal will make a positive environmental, and/or social and economic contribution; 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.

In the first instance, permission will be granted on a temporary basis for a three year period. A permanent permission will only be granted where it can be demonstrated that all relevant criteria have been complied with in full.

