



# Diffuse Development

A SUSTAINABLE SOLUTION TO THE UK'S HOUSING CRISIS

# Diffuse Development

## A Sustainable Solution for the UK's Housing Crisis

28<sup>th</sup> February 2007

with minor revisions dated 31<sup>st</sup> July 2007

[www.ukagriculture.com/diffuse\\_development.cfm](http://www.ukagriculture.com/diffuse_development.cfm)

Copyright © [www.ukagriculture.com](http://www.ukagriculture.com)

## **Introduction:**

### **About this paper:**

Britain seems to have had a housing crisis for as long as many people can remember. Changing demographics and household structure have conspired, with inadequate supply, to limit the availability of homes and force prices to unaffordable levels for many.

Almost everyone has a view as to what they don't want but there seems little consensus on a solution to which society at large can agree. This paper suggests a novel alternative to help ease Britain's housing crisis.

This document is published by [www.ukagriculture.com](http://www.ukagriculture.com) as a contribution to public debate.

### **About the author:**

[www.ukagriculture.com](http://www.ukagriculture.com) is produced by Living Countryside, Company Limited by Guarantee No. 4066376, Registered as a Charity No. 111614.

The objects of Living Countryside are to:

- Advance the education of the public in all aspects of agriculture, the countryside and the rural economy
- Promote greater public understanding of the role of agriculture
- Conserve and protect for the benefit of the public the countryside as a whole

**Executive summary:**

This paper introduces the novel concept of “diffuse development” as a solution to help ease the UK’s housing crisis.

Diffuse development is the provision of small clusters of very low impact housing in farmyards throughout the country. The houses should be built of local materials, discretely placed and subject to the planning condition that they are made available for letting and cannot be sold outside the farm business.

Diffuse development provides a number of important environmental benefits through the use of renewable energy at the local level, sustainable water use and improved flood management.

Diffuse development helps to develop local communities and their businesses by providing affordable housing close to the place of work and in so doing encourages social and occupational mobility.

Diffuse development avoids blighting our countryside with homes that are located in large blocks far from the workplace where they destroy the natural environment and put undue pressure on the existing infrastructure.

Diffuse development is a truly sustainable solution to help ease the UK’s housing crisis.

## **Analysis:**

For many years Britain's housing stock has been growing at a slower rate than the demand for new homes. The supply shortage, coupled with changing demographics and household structure has forced house prices ever higher, pricing new entrants out of the market and reducing occupational and social mobility.

Although a number of independent and Government sponsored reviews have attempted to address the crisis, the proposed solutions have been largely technical and little seems to have changed.

### **What we might want from new housing**

It is the responsibility of government to have in place a framework of goals that governs additions to the housing stock so that at the macro level the aggregate housing stock can develop to meet perceived societal needs.

#### ***We believe that given the challenges of:***

- The UK's high population density
- The likely affects of climate change
- World population growth (to 9 billion within 40 years)

#### ***Additions to the housing stock should meet the following goals:***

- Provide housing close to the place of work
- Provide housing of sympathetic local architecture
- Provide housing built from local materials
- Provide housing that meets local needs
  
- Preserve local heritage
- Preserve farmland
- Preserve woodland
- Preserve greenbelt
- Preserve other green spaces
  
- Not put undue pressure on the existing transport infrastructure
- Not put undue pressure on the existing social infrastructure
- Not contribute to adverse externalities
- Not undermine local democracy
  
- Be affordable
- Be energy efficient
- Be able to use water sustainably
- Be close to locally generated power
  
- Help create and support local communities
- Help lower house prices and encourage social mobility

Sadly over the past twenty years very little new housing has met a significant proportion of these goals and much it seems has achieved exactly the opposite. Too often new housing ticks only the boxes required to meet numbers based government targets. Expensive, poorly designed homes are located in large blocks far from the workplace where they destroy the natural environment and put undue pressure on the existing infrastructure and community. Almost everyone is dissatisfied. It is time for new thinking.

### **What we can learn from history**

For much of the last six thousand years, most of Britain's population has lived in small rural communities . The inhabitants have lived close to their place of work in homes built of local materials. They have been closely connected with the natural environment and used sustainable practice to provide food, materials and energy. They wasted little, reused much and ultimately had little adverse environmental impact. For the most part they lived in farming hamlets and in almost every way their developments would meet our suggested framework of goals.

### **A new concept**

Borrowing from past practice we would like to introduce a new concept, namely:

*d i f f u s e   d e v e l o p m e n t*

Diffuse development is the widely spread, scattered or dispersed development of new homes. This does not mean however, the creation of a vast commuting suburbia by filling every field with a new home. Rather it will be the provision of small clusters of very low impact housing throughout rural areas that sustain communities. At the local level the development will go largely unnoticed. Aggregated to the macro level and it provides a significant solution to help overcome Britain's housing crisis. The question is, where?

### **The 21<sup>st</sup> century farm**

The purpose of agriculture is to provide planned food utilisation for its dependant societies and as little as fifty years ago the connections between farmers and local communities were very clear. With the march of globalisation much has changed. Agriculture and its dependant societies are now thoroughly disconnected and farmers battle for small profit on a world stage. Increasingly they have turned to diversification to meet ends meet. Redundant agricultural buildings have been converted for holiday lets, workshops, retail and other rural activities. At the same time farming output has changed. The commodity production of the 1980's has yielded to a more balanced output, one that includes environmental gain and energy cropping. Gradually farming businesses have changed with the farmyard itself becoming a place of rural enterprise. With just a few houses the farmyard could again become home to a sustainable rural community.

## **The farmyard**

Under the current planning system, farmyards are treated as being of agricultural use and planning permission is restricted to agricultural activities. Given the challenges that we now face from population growth, climate change and overcrowding, it is time to reappraise the planning status of the farmyard. Farmyards offer us something unique:

- ▶ the ability to meet all the goals we want from new housing

We have already detailed a comprehensive set of goals for new housing, but just building new houses in farmyards won't necessarily achieve any of these unless the housing forms part of broader purpose – building for sustainable living.

### **Planning for sustainable living**

New houses in farmyards should be built from local materials and be sympathetic to the local architecture. They need to be relatively small (of traditional cottage size) and discretely placed within the curtilage of the yard so that they cause minimal intrusion into the rural environment.

They should be located so that they do not hinder the agricultural business, now or in the future. Great uncertainty exists over the possible outcomes of climate change and we must ensure that agricultural potential is retained.

The grant of planning permission should be subject to the condition that the houses cannot be sold off separately – they must be retained within the farm as a whole and made available for longer term letting. This provides new opportunities to those who cannot afford to purchase and to those who simply wish to live closer to their place of work. It also ensures that the available housing stock is not reduced by multiple home ownership.

Careful attention would need to be taken by the planning authorities to ensure that the scale of the development was appropriate. New homes should not put adverse pressure on the existing transport and social infrastructure although in many areas quite the opposite problem exists. Two or three new homes would be wholly appropriate for most farmyards and likely to receive local support in contrast to traditional housing development which seems to offend nearly everyone.

### **Affordable living**

One of the great housing challenges of our time is to provide affordable housing in the places that people want to live. Unfortunately this is proving extremely difficult, not so much because of the cost of the house, but because of the prohibitive cost of land.

Recent reports have suggested that more brownfield land could be made available to ease the housing crisis. However this is unlikely to lower land prices by much as most brownfield sites are owned with the expectation that their values will continue to increase provided their supply to the market remains restricted.

Land in farmyards however has little underlying market value as there has never been any expectation of its development. Furthermore because it comes to the farmer free of additional charge and could not be sold off separately, houses would be provided at much lower cost than those in alternate developments. This would provide the farmer with a competitive advantage in letting in that he could undercut the current market rents but still make a reasonable return. This would have a hugely important knock on affect in the housing market in that it would be a stimulus for lowering prices. For the first time new housing would become available that was not subject to the widely established vested interest of keeping prices high – the major barrier to social and occupational mobility.

### **Living sustainably**

In just a decade, the issue of global climate change has leapt from near obscurity to “the most fundamental issue facing mankind”. This societal awakening is forcing a reappraisal of the way we live and the resources we use. Increasingly we can expect to see fossil fuels replaced by renewables with agriculture playing a prominent role in the provision of bio-energy.

At the local level this is already happening. Farms and estates are installing district heating systems that can run on woodchip or crop residues. These tend to be expensive when they service the existing building infrastructure but much cheaper when they are included in the design from the outset, as is possible with new housing.

District heating systems that provide heat to new houses provide a source of revenue to the farmers and encourage them to utilise woodland produce or crop residues that otherwise would go to waste. And because these energy sources are available locally from the farm, their overall efficiency of energy utilisation is extremely high.

District heating also encourages good environmental practice. Neglected farm woodlands (the majority) could be brought back into the coppice cycle to the great benefit of flora and fauna. Coppicing is perhaps man’s most sustainable activity.

At the farm level, water use is also managed much more sustainably. Water is often drawn from a borehole, used and then treated in septic tanks. It returns by soakaways to replenish ground water levels so ultimately there is little loss of freshwater. This is in marked contrast to most conurbations where used water is treated centrally and then allowed to discharge into rivers or the sea.

The concept of diffuse development also offers benefits in terms of flood management. Diffuse development does not lead to the extra roads or hard areas so common in modern housing developments. These hard areas have a propensity to flash flood in heavy rainfall contributing to flooding further downstream and seeing the loss of freshwater to the sea. With diffuse development, by contrast, rainfall is absorbed by soakaways and allowed to return to the groundwater aquifers gradually.

For most of the last six thousand years, much of Britain's population has lived close to its place of work in small tightly knit communities. Such communities now rarely exist, although they could be recreated. Diffuse development provides housing that is potentially affordable, close to the place of work and which uses water and energy resources efficiently – all characteristics of a sustainable community.

### **From small beginnings**

There are around 300,000 active farms in the UK with around 40,000 of these accounting for 65% of the land area. Many of these farms would be too small to accommodate diffuse development without it having an adverse impact on the environment. Diffuse development becomes less attractive as the size of the agricultural holding decreases. This is not just because developments would be very close to each other, but also because the efficient use of natural resources would be compromised by higher development densities at the wider level. Even so it is possible to envisage 100,000 farms providing 250,000 new homes with minimal public dissent.

### **Conclusion**

Diffuse development provides an effective solution to help overcome the UK's housing crisis. It falls neatly into Government policy to reduce the UK's carbon footprint whilst at the same time boosting local businesses. It encourages the uses of renewable energy at a local level where they can be most efficiently deployed and at the macro level helps to lower house prices by providing new supply outside existing vested interest. It's a thoroughly practical solution.

### **Recommendations**

Government planning guidance should be rewritten to encourage diffuse development with the provision of small clusters of very low impact housing in farmyards throughout the country.

To minimise the environmental and social impact of the new housing they should be built from local materials and be sympathetic to the local architecture. They need to be relatively small and discretely placed within the curtilage of existing farmyards.

The new houses should be located so that they do not hinder the agricultural business and subject to the condition that they cannot be sold off separately – they must be retained within the farm as a whole and made available for longer term letting.