A BROWN AND PLEASANT LAND

POST 117
Report Summary
July 1998

- *What are brownfield sites?*
- *Their potential for housing development*
- *Overcoming barriers to this*

The Government's projections of the numbers of households expected to form in England between 1991 and 2016 sparked off a lively debate about where and how these people could be accommodated. There has been considerable pressure to ensure that as many new homes as possible are built on previously used land (more commonly known as brownfield sites), but there are many barriers that prevent its full potential from being realised. Parliamentary interest in this topic is increasing, and the House of Commons Environment Sub-Committee is currently conducting an Inquiry into Housing.

This note is a summary of a longer report prepared by POST, which reviews the Government's household projections and the limited data on the availability of brownfield sites, and examines the process of redeveloping such sites for housing.

BACKGROUND

In 1995, the Government projected that the number of households in England is likely to increase by 4.4m over the period 1991 and 2016. The main drivers of this are:

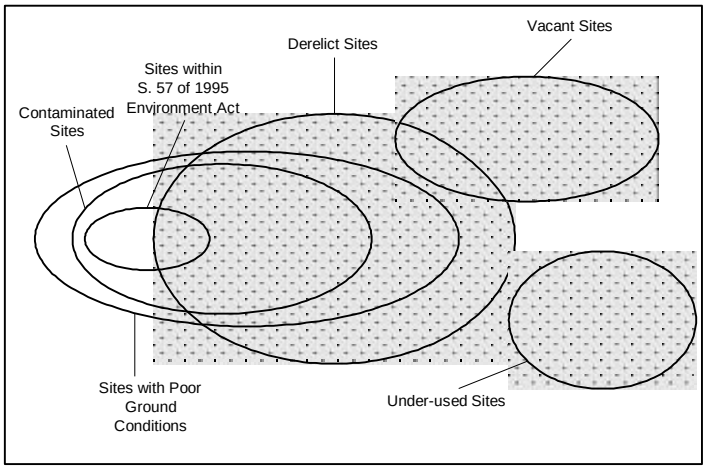
- growth in the total adult population;
- growth in household representative rates;
- changes in the age and sex structure of the population; and
- changes in marital status and cohabitation.

The most significant consequence of these factors is that, of the total increase of 4.4 million households, 3.5 million are expected to be formed from people living alone.

The expected household increases are not likely to be uniform across the country. Indeed, 1.7 million of the 4.4 million new households are expected to form in London and the South East. The continuation of long-established housing policy goals will make it a priority that a home is found for each of the 4.4 million new households, but this does not mean that 4.4 million new houses will need to be built. Many of these households can be accommodated in flats, maisonettes, converted or refurbished existing dwellings, and non-residential properties. Similarly, not all of the 4.4 million new homes are needed immediately – they would be required at a fairly uniform rate of 176,000 per year over the 25-year period between 1991 and 2016, and indeed around 1 million new homes have already been provided between 1991 and 1996 (i.e. in the first seven years of the 25-year horizon for the projections)

Nevertheless, it is likely that many hundreds of thousands of new homes will need to be built, and successive governments have sought to ensure that a large proportion of these are provided on previously used (or brownfield) land. In February 1998, the Government announced that it would like to see a minimum of 60% of new dwellings provided on brownfield land over the next 10 years. **Figure 1** indicates the types of land that are included in a comprehensive definition of 'brownfield', as adopted by POST.

FIGURE 1 BROWNFIELD SITES AND OTHER LAND



Source: POST

Unfortunately, at present it is not possible to provide a definite answer to questions about how much brownfield land there is, its location, and its condition. DETR is developing a National Land Use Database (NLUD) to help plug the gaps in the data. Similarly, the Urban Task Force is looking at the availability of brownfield land, and the mechanisms that might be used to promote its redevelopment.

However, data are available on 'derelict' land, which at least give an indication of the scale of one component of the total brownfield resource. The last survey of derelict land in England was in 1993, and this found a total area of 39,600 hectares. The types of dereliction varied considerably (23% of the total area were spoil heaps, 25% from general industrial dereliction, and 14% from railway land). Similarly, the location of the derelict land

also varied regionally (22% was in the North West, while only 2.6% was in East Anglia.), and locally (in the North West over 70% was in urban areas, while in the South West over 80% of derelict land was in rural areas).

In the context of the housing debate, the main conclusion from this analysis is that **the location of derelict land does not correspond with the main areas of expected population growth**. For instance, London and the South East together have 11% of the total area of derelict land, but are likely to experience 40% of the projected national increase in the number of households. There is therefore a mismatch between the supply of derelict land and the demand for household growth (shown in **Table 1)**.

TABLE 1 DERELICT LAND & HOUSING DEMAND

Region	%total area of derelict land	% total household increase
South East	7.3	25.2
London	4.1	14.4
South West	14.0	12.4
North West	21.8	10.2
East Midlands	11.1	9.5
Yorks. & Humb.	13.8	8.8
West Midlands	12.5	8.4
East Anglia	2.6	6.5
Northern	12.8	4.6

Source: DETR

As well as derelict land, other forms of brownfield land may provide a useful resource. For instance, estimates from the Empty Homes Agency suggest that up to 1 million new homes could be provided through refurbishment of existing run-down dwellings, and conversion of other buildings, such as offices, commercial buildings and flats above shops.

The Wider Context

The aim of maximising the use of brownfield sites is not an end in itself, but is part of a broader policy of promoting sustainable urban living, protecting greenfield land, and regenerating deprived areas to achieve lasting economic, social and environmental benefits. The Government's regeneration policy is currently supported by two main instruments: the Single Regeneration Budget and English Partnerships (which is to be subsumed within the Regional Development Agencies from April 1999) EP currently supports regeneration through a range of measures, but in the context of brownfield site redevelopment the most important is 'gap funding', which seeks to make derelict and contaminated sites more competitive compared with development on greenfield sites.

One important aspect of the role of brownfield sites within the regeneration debate is how to make the best use of the land when sites are being redeveloped. Thus, it is important to recognise that when maximising the use of brownfield sites for housing, there may also be a need to provide for other land uses, such as schools, community and leisure facilities, and commercial and industrial activities. Such **mixed-use developments** (sometimes called 'urban villages') seek this balanced approach to using land, so that more contained, small-scale, communities are developed that combat social exclusion, provide high quality environments, and reduce environmental impacts (e.g. by reducing the need to use private cars for transport). This is the context within which the Urban Task Force will operate, and it has set itself the goal of answering five questions by Summer 1999:

- "Why is there a problem in English cities today?
- What sort of places do people want to live in?
- How do we achieve well-designed, sustainable communities?
- How do we influence urban attitudes and prejudices?
- How do we finance our urban vision?"

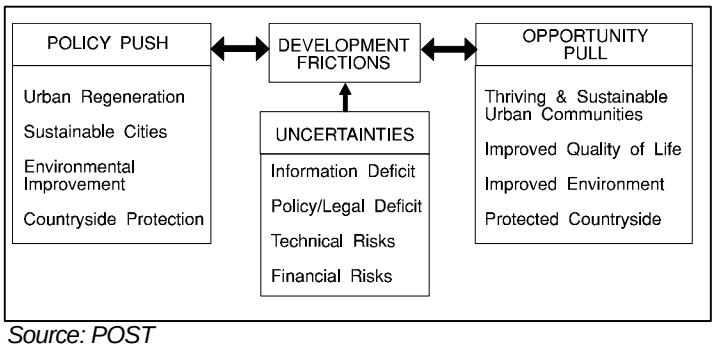
REDEVELOPING BROWNFIELD SITES

One way of considering the process of redeveloping brownfield sites is to view it as a three-way dynamic, involving:

- **Policy Push** which encourages brownfield redevelopment to achieve environmental, economic and social benefits related to the desires for urban regeneration and sustainability.
- **Development Frictions** which are generally caused by obstacles, such as the uncertainties faced by developers that may arise from technical and financial risks, and inadequacies in information and the legal and regulatory regimes.
- **Opportunity Pull** which allows the realisation of the potential benefits to all stakeholders in creating desirable and sustainable urban communities: e.g. profits for developers and financiers and an attractive environment for residents and employees.

The three factors interact as follows (**Figure *2***). The Opportunity Pull drives the Policy Push and the desire to provide the homes required (e.g. to tackle urban deprivation, poor environmental quality and to protect the countryside). At the same time, uncertainties create Development Frictions that work against both the Policy Push and the Opportunity Pull (e.g. there may be technical problems associated with redeveloping brownfield sites (particularly contaminated land) and financial institutions and prospective residents may be reluctant to take on the risks involved.

FIGURE 2 THE BROWNFIELD DYNAMIC



Source: POST

Furthermore, a lack of information on the availability of brownfield land and its feasibility for redevelopment, means that developers find it difficult to plan their housing projects into the long-term. Moreover, a lack of a comprehensive and clear legal framework, and sets of procedures and standards for tackling sites (contaminated land is a key problem here[1]), also leads to confusion and variable (and possibly conflicting) approaches by different regulatory agencies, although the Environment Agency is working with local authorities to overcome this.

There is also an obstacle cited by some developers, based on underlying concerns about urban living, which may concentrate too heavily on the 'negative' aspects associated with towns and cities – i.e. crime, parking problems, smaller homes and gardens, and environmental problems. However, as discussed in the previous sections, the redevelopment of brownfield sites presents a possible opportunity to tackle these problems in a coordinated manner. Thus, by providing high-density dwellings in mixed-use developments with high design standards and high environmental quality, it is possible to tackle the problems of deprivation, social exclusion and poor environmental quality together in the pursuit of '**sustainable cities**', so as to make urban areas pleasant places in which to live.

Clearly, the optimum redevelopment solution will vary from site to site; with many brownfield sites unlikely to have any problems at all. However, developers, their financiers and insurers, and ultimately residents, are not necessarily put off brownfield sites just because they may have some problems but it is crucial to reduce the uncertainties that they might face, by identifying:

- The on-site problems faced (e.g. geotechnical or contamination hazards), but also the influences of, and impacts on, the wider environment;
- the development opportunities available and any effects the on-site problems would have on the value of the assets involved and on the feasibility of the scheme (including people's acceptability of brownfield development and confidence in the processes and institutions carrying out risk assessment and management); and
- the costs and liabilities incurred in investigating and remediating sites - the requirements for making them 'safe' and the financial and legal remedies that would adequately guard against the risks involved.

ISSUES

The mismatch between the location of the supply of derelict land and the demand for new housing raises the question whether there is sufficient brownfield land (of all types) in the right places to accommodate a minimum of 60% of new homes required by 2016. While there is no agreed definition of the term 'brownfield', it is important to recognise two key points:

- **Not all brownfield land is contaminated or derelict.**
- **Not all brownfield sites are located in urban areas.**

One important barrier to demonstrating that the DETR's target can be met is the lack of a comprehensive database of the location, condition and availability of brownfield sites. DETR has asked the Regional Planning Committees (RPCs) to develop more locally-based targets, and to do this it would be prudent for the RPCs to await the results of the NLUD. However, questions still remain over how the planned RDAs will take up and use the brownfield targets set by the RPCs, and moreover, how DETR will be able to ensure national coordination of the regional targets, especially where RDAs may be in competition to attract inward investment.

While important as a statement of national policy, the precise figure adopted as the target for recycling brownfield land may be a secondary consideration. What is perhaps more important is **how the general policy towards maximising the reuse of previously developed land can be realised and integrated with broad policies of encouraging regeneration of deprived areas and a move towards more sustainable cities**.

There are many developers who routinely build homes in urban areas, involving both refurbishment and conversion of existing buildings, or new-build on derelict or vacant sites. However, a significant proportion of developers effectively reject brownfield sites; preferring to develop on greenfield sites. There may be many reasons for this (e.g. their assumptions about where people want to live, their reluctance to take on risks, etc.).

[1] But other considerations include reluctance by local authorities to use compulsory purchase powers, delays and complexity of the administrative systems, and a lack of common standards on urban design (e.g. compaction densities, layout and mixed uses, and built form).

Overall, however, developers are not necessarily put off from developing on brownfield sites. Many organisations (including builders, financiers and regulators) agree that a key requirement for maximising the reuse of brownfield sites is to reduce the uncertainties that they currently face in terms of:

- the types and extent of the problems experienced on brownfield sites (especially where geotechnical or contamination hazards are likely), and their effects on the value of the assets involved and hence the ultimate feasibility of development schemes.
- the costs and liabilities incurred in investigating and remediating sites, such as the requirements for making sites 'safe' and the financial and legal remedies available adequately to cover the liabilities.
- regulatory and administrative difficulties, e.g. inconsistencies in the standards and requirements for site rehabilitation, difficulties in assembling brownfield land for housing, and inflexibility in urban design principles and standards.

There are a number of technical questions relating to:

- **site investigations** – the methods and costs to acquire sufficient information about a site with which to make an informed decision about the risks involved.
- **site remediation** – how the risks involved should be assessed, particularly in relation to deciding whether a site is 'suitable for use', and what is required for remediation Also, what remediation methods are to be employed, taking account of factors such as cost, time and reliability.
- **warranties and insurance** – the role of such schemes in encouraging investors, developers and ultimately residents to develop and live on brownfield sites.
- **training needs** – whether there is a requirement for improving the level of knowledge of those involved in the process of redeveloping brownfield sites, and if so, how this could be achieved.

Although these issues are important to the redevelopment process, if the recycling of previously used land is to be maximised, **the land use planning system is perhaps the most important factor in ensuring that brownfield land can be made available with the minimum of difficulty**. The Housing Inquiry by the Commons' Environment, Transport and Regional Affairs Committee is focusing on many planning and redevelopment issues (e.g. the accuracy of household projections, derivation of housing requirements, capacity studies, design and density standards and the release of industrial land).

However, two key issues stand out in relation to the role of local authorities:

- **Strategic Planning** – e.g. in setting land-use zoning policies, possibly through the use of a '**sequential approach**'. Here, local authorities ensure that the maximum amount of brownfield land is identified an allocated for housing (possibly within mixed-use developments) when drawing up development policies and plans.
- **Development Planning** – e.g. in setting local design and housing density standards, and in adopting a '**sequential test**'. Here, local authorities would have to be satisfied when faced with a planning application to build on greenfield site, that all possibilities for brownfield sites had been explored and eliminated.

These ideas have not been explored in great detail, and thus one option would be for **DETR to develop guidance on how a sequential approach and a sequential test for housing may be constructed and implemented**.

The final issue concerns the use of economic incentives for brownfield development, and examples include:

- exemption of contaminated land from landfill tax.
- financial levies on greenfield development.
- tax credits for brownfield development.
- tax penalties for owners of vacant land or properties.
- harmonised VAT on newly-built houses and refurbished properties

IN CONCLUSION

The 1995 household projections for England brought to a head debate over where new housing should be provided - becoming popularised as whether it should be provided on greenfield or brownfield sites. However, people's views on brownfield sites have traditionally equated with dereliction and contamination in urban areas. Nevertheless, brownfield sites can be defined more broadly as any land that has been previously developed, and thus there are many opportunities both to provide for the likely increase in the number of households, and to make more effective use of land through means such as mixed-use 'urban village' developments. However, barriers remain to achieving the full potential for brownfield sites, chiefly related to technical issues over site investigation and rehabilitation, and to planning issues related to the functions of local authorities (e.g. in identifying and releasing land for development and setting urban design standards).

This is a summary of a 66-page report free to Parliamentarians (ext 2840); External sales (£12) from The Parliamentary Bookshop (tel: 0171 219 3890.