

Kyoto Local: Concern into Action

New Housing – meeting the sustainable development challenge

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1. New housing – meeting the sustainable challenge

This short presentation does not attempt to be comprehensive, but rather attempts to draw out some key principles and actions.

There are many definitions of sustainable development. The one I favour that captures the spirit comes from Native Americans, who refer to “not eating tomorrow’s potatoes”. This has the essence of not depleting the earth’s environment and passing onto future generations a living planet.

2. The challenge – large number of new homes

The following table shows the number of existing homes and the number planned by 2021.

	Existing homes - 2001	Planned homes - 2021	% increase
Bedfordshire/Luton	230,259	+ 59,100	26
Hertfordshire	429,810	+ 83,200	19
Total	660,069	+142,300	22

The 2001 census results showed that there were about 600,000 homes in Hertfordshire, Bedfordshire and Luton.

The latest plans propose over 140,000 new homes by the year 2021. That is a rate of construction of over 7,000 per year.

These plans have yet to be confirmed - the figures are taken from the recommendations from an independent Panel, who conducted a public examination into the draft East of England Plan. (www.goeast.gov.uk. East of England Plan Examination in Public Report). The report has been submitted to Government and we wait to see if the Government accept the report. However there is unlikely to be a significant change in the housing figures.

Local authorities will be expected to use the development plan process to bring forward sites for these new homes.

3. The challenge – develop sustainably

In order to build the new homes in a sustainable manner, local authorities will need to consider:-

- where new homes are built – brown field versus green field;
- what resources are consumed, in both construction and in the use of the homes;
- what energy is consumed, in both construction and in the use of the homes;
- how the location of new homes can influence travel behaviour, to reduce reliance on the private car.

4. The challenge – the impact of new housing

Occupiers of houses make a major impact on the environment. In the UK, the energy used by householders accounts for over a quarter of all CO₂ emissions, so reducing household energy consumption can make a significant contribution to actions to tackle climate change. Households use 50% of all the water supplied, so making efficient use of water crucial in this dry part of England. Each household in Bedfordshire generates over 1 tonne of waste per year, so actions to reduce the amount of waste disposed, to reuse materials and to recycle will lead to a reduced consumption of finite resources.

The new houses themselves will consume land. In Bedfordshire, this could account for over 3,000has. This is a large area, but whilst it will lead to a major change in the appearance of areas where development will occur, the county will still be largely rural, with only about 10.4% built on.

5. What can be done?

Local authorities can influence the location, design and construction of new homes in ways that will contribute to a more sustainable form of development. The next section looks at what these actions are.

6. Local Authority Actions – policy and guidance

The statutory development plans drawn up by the District Councils can include policies that:-

- Focus new housing on previously developed land, to minimise use of green fields;
- Protect the environment – wildlife, landscape, heritage;
- Have a positive or at least neutral impact on climate change;
- Build new houses to higher energy saving standards, in terms of construction of the houses and layout;
- Building houses to conserve materials used in construction;

- Conserve water by minimising the amount of water used – rain water harvesting and water recycling
- Use natural systems such as passive solar design and ventilation, shading;
- Facilitating more sustainable behaviour through measures to encourage walking, cycling, use of public transport;
- Promote sustainable waste behaviour.

Policies can be supplemented by guidance. Two examples from Bedfordshire:-

A Sustainable Development Ticklist, produced jointly by all the local authorities which list measures that make development more sustainable.

The Managing Waste in New Developments guidance includes requirements for waste storage/recycling at each new home and guidance on reducing waste from the actual construction of new homes.

The design and location of new housing can be influenced by local authorities providing clear planning policies in the statutory development plans and supplementing these with briefs for new development of particular sites, showing to developers what are expected to be included in a planning application. The grant or refusal of planning permission will then be in accordance with the planning policy and development brief. Funding for key features can be secured from developers by the use of legal agreements; (known as Section 106 agreements). Taken together these mechanisms are potentially very powerful in delivering sustainable development

7. Local Authority Actions – the Wixams new settlement

An example of how this is drawn together is the Wixams new settlement, just to the south of Bedford. This development of 4,500 houses is on a former war time munitions factory, so uses previously developed land, rather than green fields. The development brief set out the requirements in the form of a “Sustainability and energy strategy”. This strategy proposes:-

- that all homes achieve an EcoHomes rating of “very good”. Assessment includes building form and layout – maximise south facing windows, insulation levels, use of high efficiency heating systems;
- a layout which gives priority to pedestrians and cyclists. All homes within easy walking distance of schools and village centres;
- 3 waste bins per house and 3 recycling sites for the settlement;
- new bus services and new railway station;
- that housebuilders offer options of “green extras” – heat recovery ventilation, solar water heating panels, photovoltaic panels, water efficient products – such as low flow showers, higher insulation, energy efficient white goods – cookers, refrigerators etc
- information pack to new householders – walking and cycling routes, public transport information
- targets of 8% reduction in CO₂ emissions from buildings and 5% increase in total energy from locally generated renewable resources

Planning permission for the new settlement has now been granted and the funding of measures, such as the building of the new rail station and cycle ways, have been secured by the use of a legal agreement.

Further information is at www.elstowgardenvillages.co.uk

8. Local Authority Actions – the Merton 10%

London Borough of Merton has an existing policy that requires all new non residential development to incorporate renewable energy production to provide at least 10% of predicted energy requirements. This can be provided by photovoltaic energy, solar powered and geo thermal water heating, energy crops and biomass, but not energy from domestic or industrial waste.

Merton pioneered this policy approach and about 70 councils across the country have a similar policy. Merton will now seek to apply to new residential developments. Other authorities, such as Croydon already do this.

Experience in Merton is that the 10% requirement has not put off developers and only adds 3 to 4% to building costs.

9. Local authority actions – community buildings

The larger new housing developments will often require the building of new local facilities such as schools, libraries, community halls, health centres, and sports halls. Where these are under the direct control of the local authority, measures that contribute to sustainable development can be incorporated in the design of these new facilities

10. Is it enough?

Consistency

There is a variable approach by local authorities across the country. Some are very innovative, others lag behind. Reasons for the varied approach include lack of resources and the absence of a clear national policy. Only about 15% of local authorities are following the Merton and Croydon examples.

There is also local interpretation of what is required. To encourage walking and cycling, we need direct routes. However advice from Police is to avoid footpaths which could provide access routes for burglars and they have a preference for cul de sacs with only one access. This can lead to a lengthy walking and cycling route, which discourages their use.

Planning policies often seek to limit the provision of parking spaces with new development, particularly in towns, where there are alternative means of transport.

The theory is to encourage non car modes of transport by limiting parking. However local communities and politicians attempt to resist this approach, for fear of increasing parking pressure on adjacent streets.

National policy

Government could do more to encourage local authorities to maximise the potential of the planning system to deliver sustainable development. One local authority lost an appeal against a requirement for new housing developments to include rain water butts and compost bins, as there was no national policy framework to back this up.

The house building industry has a key role. A recent survey of local authority planners by the Royal Town Planning Institute showed that only about half of the house builders understand their environmental responsibilities.

Response to the survey included:-

“Volume house builders do not seem to be keeping pace with the changing emphasis on the importance of sustainability, beyond a cursory attention to transport. Suggestions to take advantage of solar gain or grey water recycling are generally taken as a joke”

“Developers are only just taking on board the desire of local authorities to promote green homes and they resist the incorporation of energy efficient building measures”.

Clearer government guidance is required to ensure that house builders meet their environmental responsibilities.

Government has now promised to issue new planning guidance on reducing carbon emissions by use of the planning system, so this situation may improve.

The new building regulations intend to improve energy efficiency in new buildings by 40% over 2002 levels, along with an energy labelling scheme for homes and other buildings. However these standards are set too low compared with European practice.

Individual responsibility

Even if local authorities ensure the location, design and construction of new housing is more sustainable, the benefits could be eroded if the householders themselves do not take actions. For instance by not:-

- leaving electrical equipment on stand by,
- leaving lights on,
- heating rooms unnecessarily,
- using the car for short journeys.

So it will be the sum of our individual actions that will be crucial in “not eating tomorrow’s potatoes”