

Paper Reference(s)

1313/1F and 3H

Edexcel GCSE

Geography B

**Paper 1F and 3H: Decision-Making
Exercise**

Monday 14 June 2010 – Morning

Resource Booklet

Advance Information

Do not open before Tuesday 4 May 2010

Instructions to Candidates

1. Read this resource booklet carefully. You may ask for help from your teacher(s).
2. You may write on this booklet to help you understand it.
3. You will not be allowed to take this copy into the examination room.

Information for Candidates

**Candidates should understand the meaning of the words in italics in the Resource Booklet.
These may be tested in the examination.**

In the examination you will be given the question paper and a new copy of this booklet.

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Turn over

The Issues

- England's population and the number of households are increasing.
- Homelessness is a continuing problem and many people are living in temporary accommodation.
- House prices have risen greatly since the 1970s and there is not enough affordable housing.
- There are also environmental issues such as global warming, increased risk of flooding and destruction of habitats.
- What types of housing should be built and where?
- Are eco-towns a desirable and sustainable solution?
If so, where should they be built?

Figure 1 – News item July 2007

Housing tops government agenda

The Prime Minister told MPs, "Housing is a top government priority. More *affordable housing* is urgently needed".

Three million new homes will be built by 2020. *Brownfield* sites will be used for 60% of them. The rest will be built on *greenfield* sites.

Less than 2% of England's land is used for housing and other buildings. Other land uses include domestic gardens 4%, roads 2%, water 2% and green open spaces (e.g. farms, parks and woods) 88%.

The Communities Minister said, "Building houses is more important than the environment. Some may have to be built in *green belt* areas".

Figure 2 – Green belts and New Towns in England

- Green belts were introduced to prevent *urban sprawl*.
- 13% of England's land is green belt.
- Several *New Towns* were built after 1945 to reduce overcrowding in cities and to replace housing that was damaged in the war.
- Many New Towns were built just outside London's green belt. Planners wanted them to be self-sufficient towns providing residents with jobs and homes.
- In fact many residents commute from these New Towns to London.

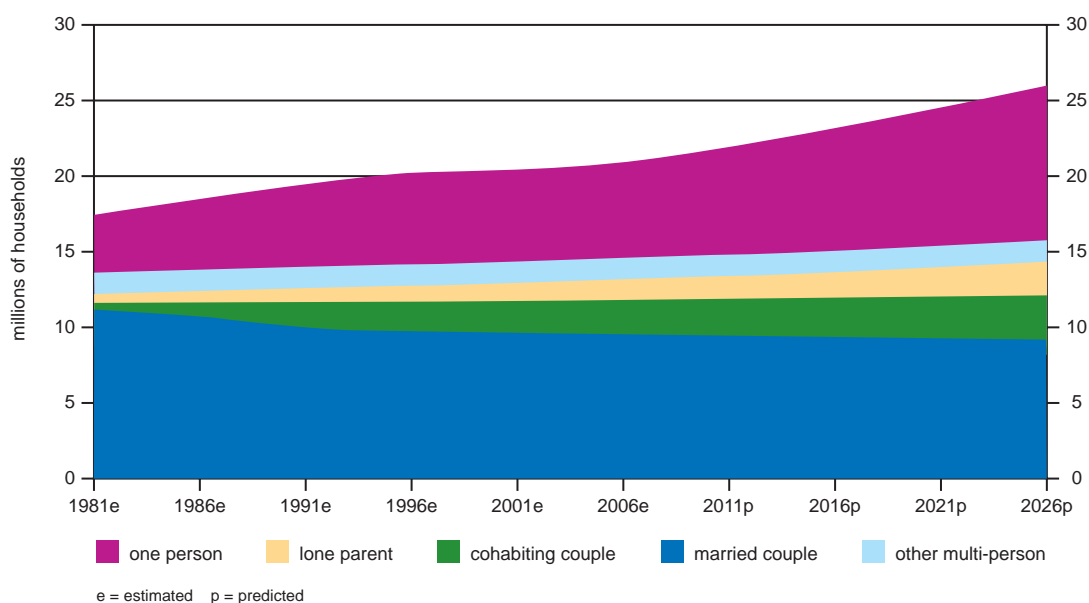


Figure 3 – Predicted population of England

Year	2009	2014	2019	2024	2029
Population (millions)	51.47	52.74	54.08	55.36	56.46
Population Density (people per sq. km)	394	404	415	424	432

(Source: National Statistics Online 2007)

Figure 4 – The number of households in England



(Source: CLG)

Figure 5 – Housing characteristics in England

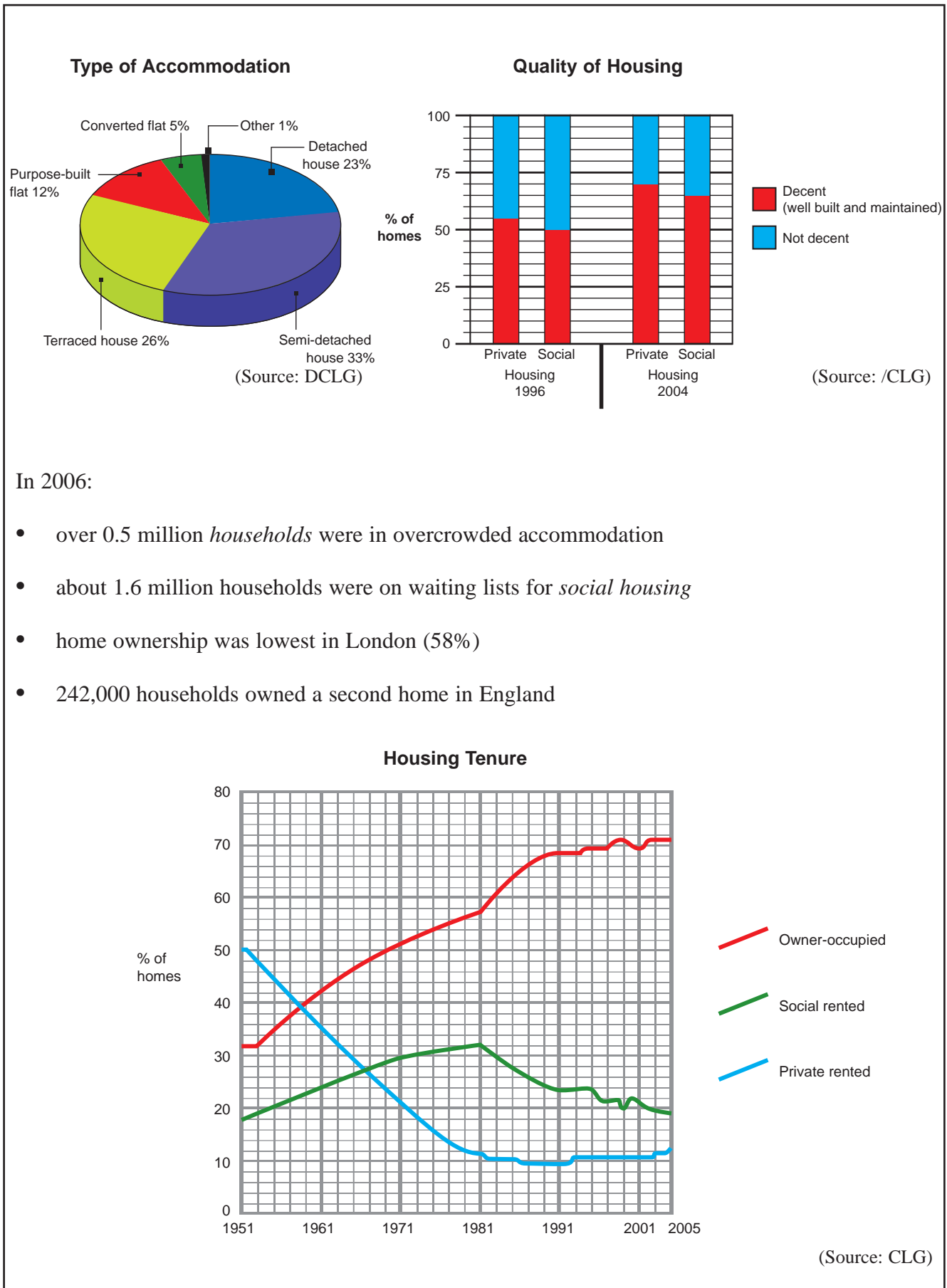
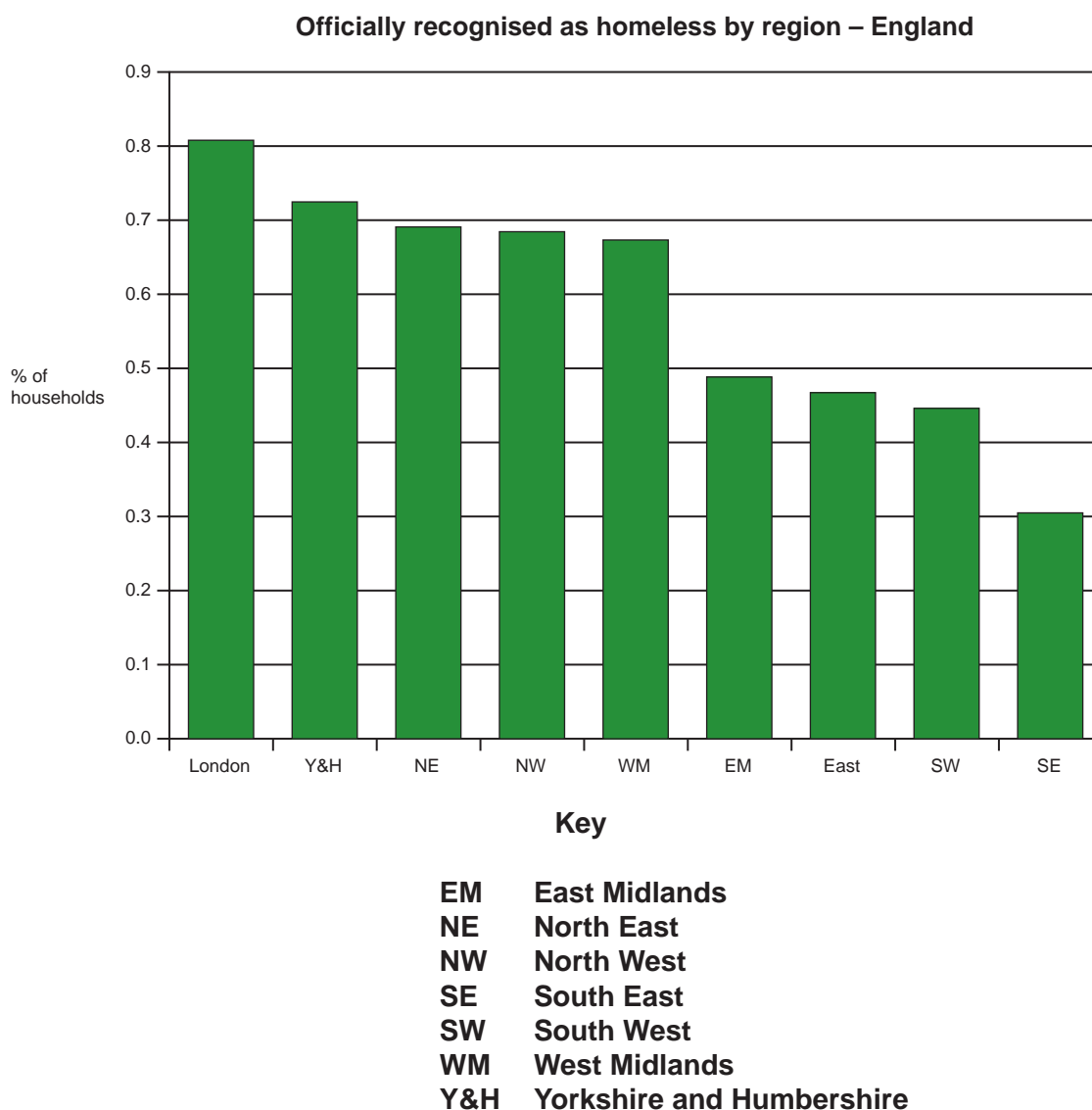


Figure 6 – Homelessness in England 2006

Some homeless people were rough sleepers; others had a roof over their head but were living in temporary accommodation that could damage their health.

In 2006:

- 120,000 (nearly 0.5%) households were officially recognised as homeless by local councils
- local councils placed 105,000 households in temporary accommodation
- reasons for homelessness included:
 - parents no longer willing or able to provide accommodation – 23%
 - relatives/friends no longer willing or able to provide accommodation – 14%
 - breakdown of relationship with partner – 19%
 - loss of dwelling (e.g. accommodation tied to a job) – 18%
 - mortgage or rent arrears – 6%

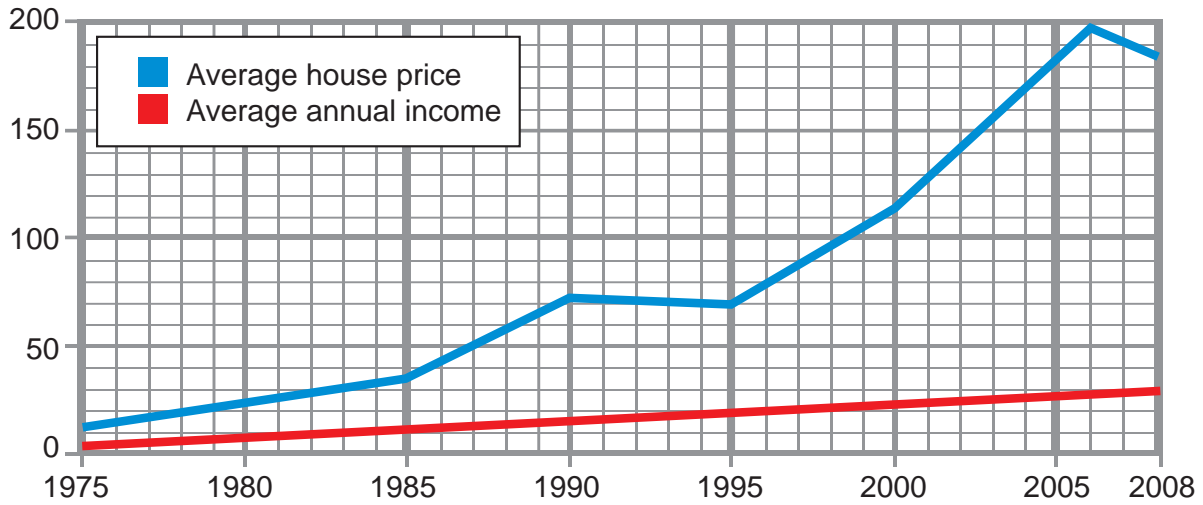


(Source: New Policy Institute)

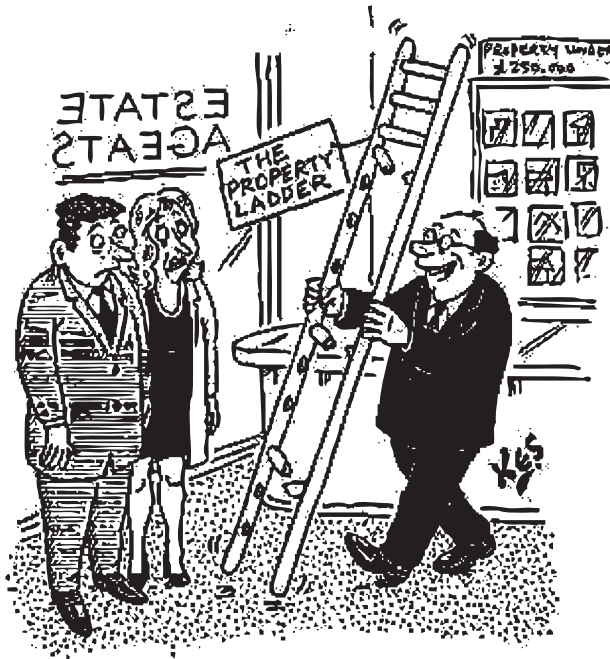
Figure 7 – Buying houses

UK house prices compared to annual income

£'000s



(Source: HBOS/CML)

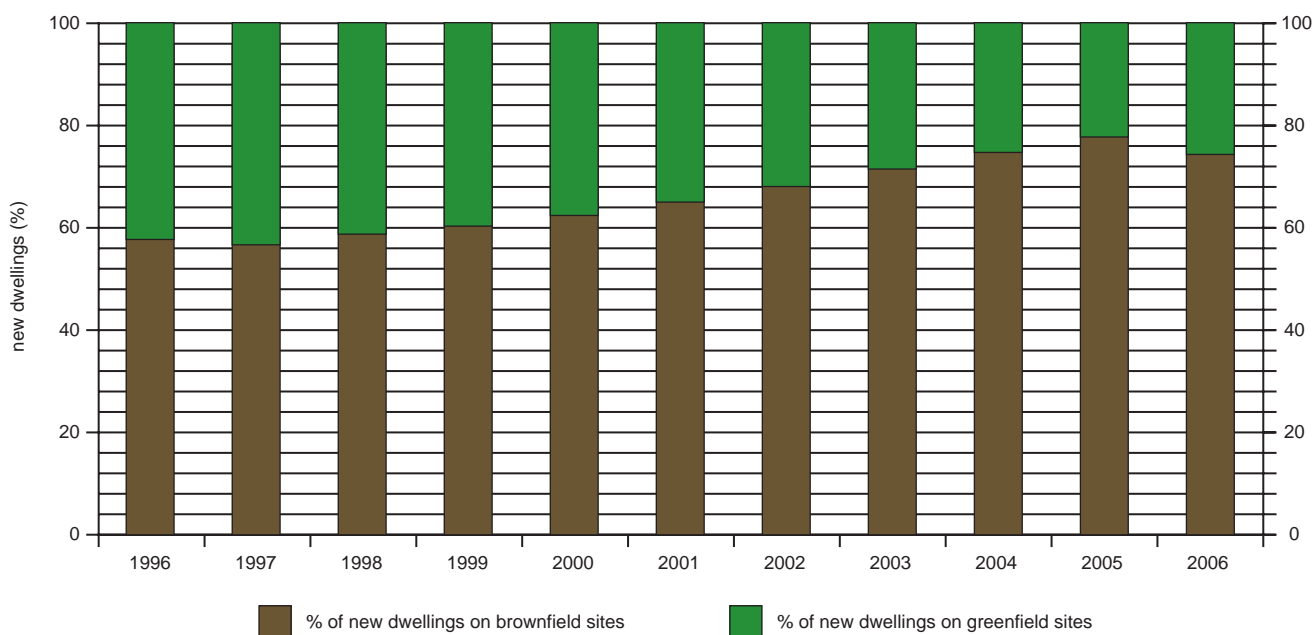


" Ahh, here it is...
I knew we had it somewhere! "

(Source: CartoonStock)

- Between 2000 and 2005 house prices increased by 73% in rural areas and by 68% in urban areas
- In 2005 the typical first-time house buyer was aged 33 and had taken five years to save the deposit – £24,000 on average (and £44,000 in London)

Figure 8 – Sites for new dwellings in England



(Source: CLG)

Figure 9 – News item August 2007

Government plans for new homes

The Housing Minister announced:

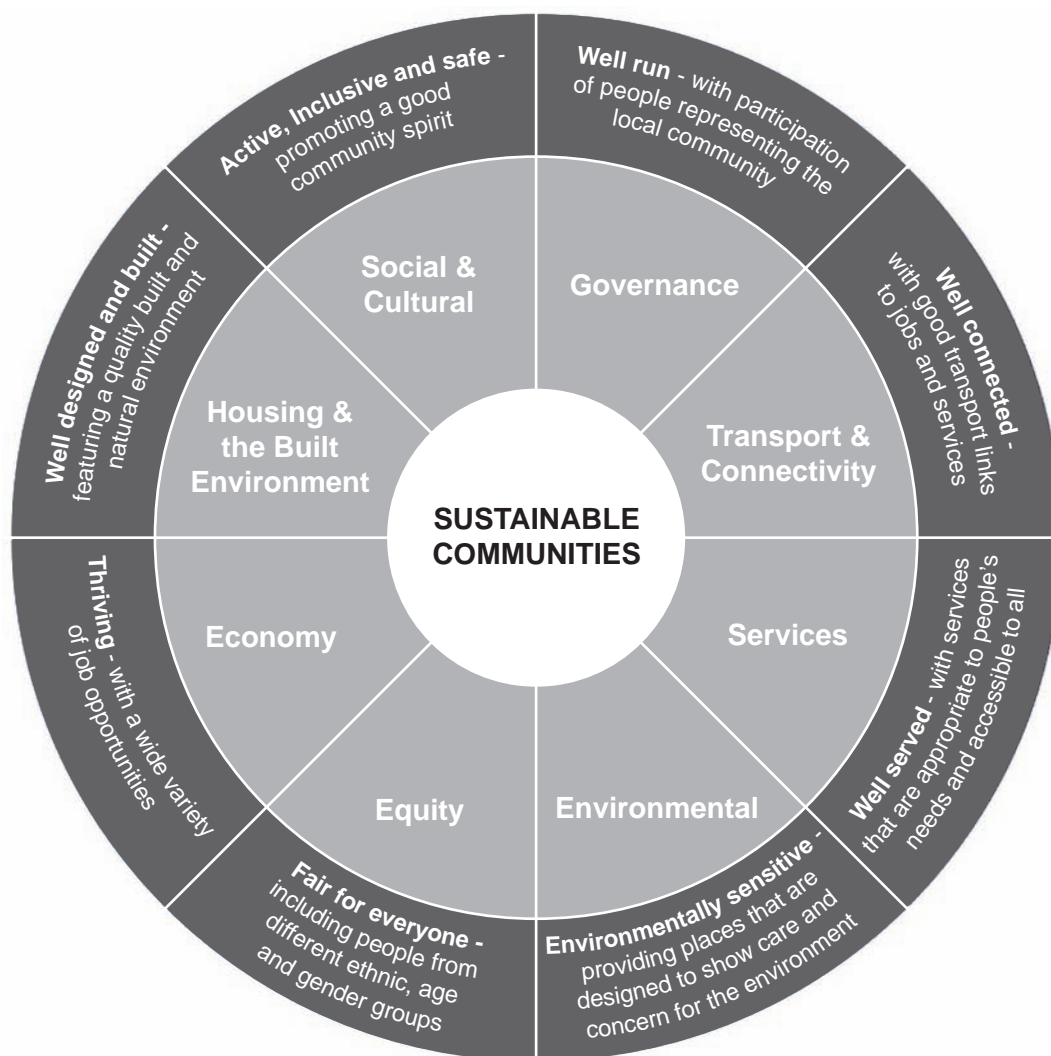
- 210,000 affordable homes (including 135,000 council houses) will be built by 2010
- loans will be introduced to help key workers, such as nurses and teachers, to buy homes
- greater energy efficiency is needed because households produce 27% of our carbon emissions
- developers will be invited to send in proposals for eco-towns. These must be sustainable communities and 30–50% of their zero-carbon homes must be affordable
- chosen eco-towns will be built by 2020

Figure 10 – Sustainable communities

Sustainable communities:

- meet the needs of existing and future residents
- are sensitive to their environment
- contribute to a high quality of life and economic prosperity
- are safe and inclusive
- are well planned, built and run
- offer equality of opportunity and good services for all.

The diagram below shows the features of sustainable communities in more detail.

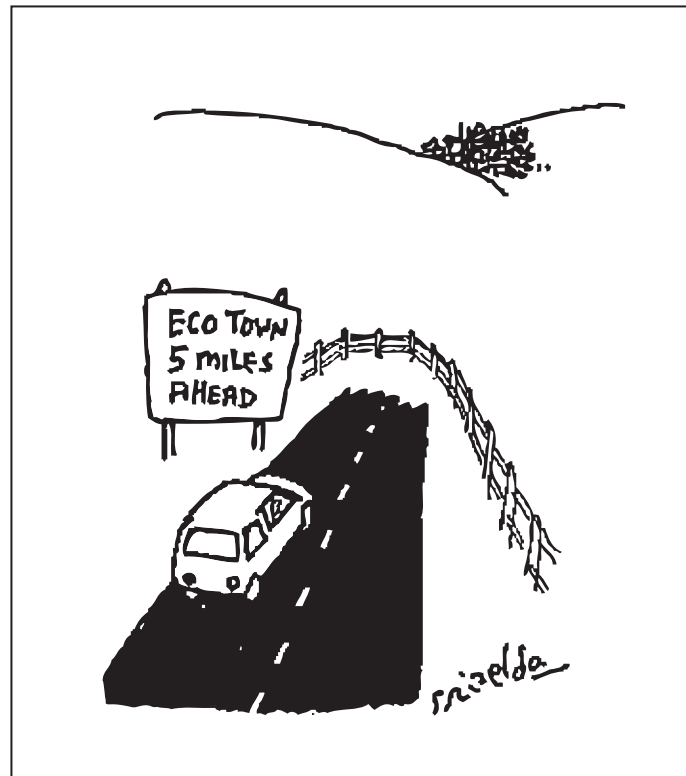


(Source: GA / RGS-IBG modified)

Figure 11 – Points of view on eco-towns



(Source: Observer)



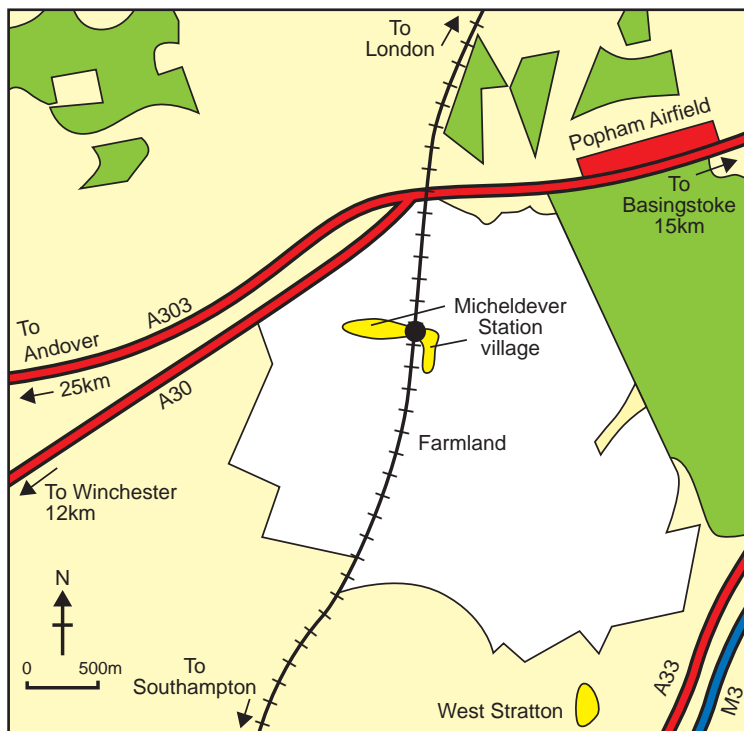
(Source: CartoonStock)

Figure 12 – Other points of view

Government press officer	Eco-towns will have renewable energy, good public transport and energy-efficient housing. They will help combat global warming.
Spokesman for The National Trust	England needs new homes and it needs its green spaces too. Eco-housing in the wrong location isn't green at all.
Director of the Federation of Master Builders	The best way to tackle climate change is to improve the energy-efficiency of existing houses. All homeowners need incentives to make their homes greener.
Chief Executive of The Wildlife Trusts	Eco-towns should not just be areas of zero-carbon homes. They should be living landscapes with green spaces which wildlife can move through.
Local councillor	The government should discourage second homes and help elderly people move into smaller dwellings.
Representative of English Partnerships	Councils and developers should use brownfield land in existing urban areas. If we don't regenerate our cities they will decline and force more development into the urban-rural fringe.
Property developer	Green belts contain some land of poor environmental quality. That sort of land should be made available for housing.
Spokeswoman for the Campaign to Protect Rural England	Eco-towns should be built on previously developed land next to existing cities. If eco-towns are free-standing settlements in the countryside they will encourage car-dependency.
Member of Parliament	There are 675,000 empty, unused dwellings in England. They should be brought into use before we build new ones.
Director of the Association of British Insurers	New housing should not be built in high-risk areas on flood plains.
London resident	Many brownfield sites in cities need to be kept for biodiversity or recreation, so they should not be built on.
Chief Executive of Shelter	Far more social housing should be built for rent and this must include large, family-sized homes. The country's housing crisis will not be solved otherwise.
Journalist	Many public-spirited people object to eco-towns but are unfairly being called NIMBYs. If eco-towns are to succeed they must be agreed with local communities, not imposed on them.

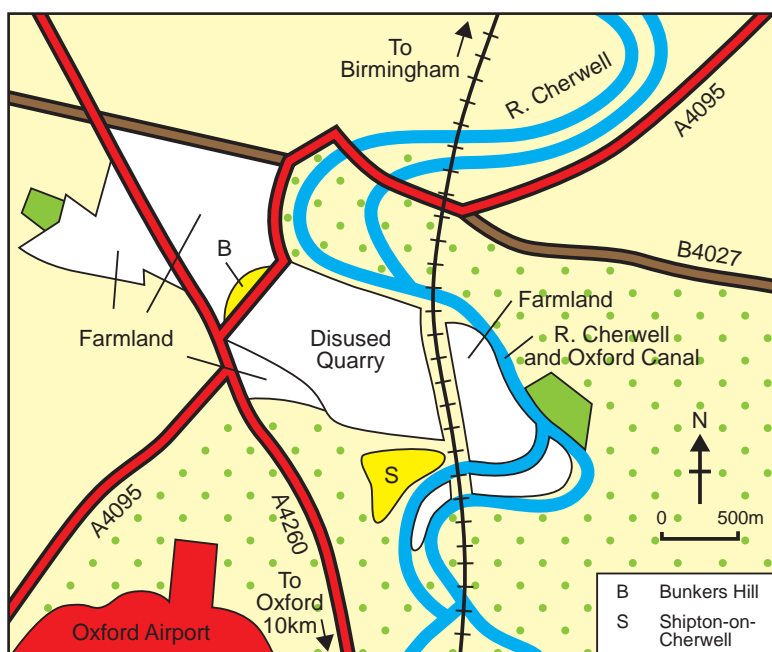
Figure 13 – Current land use and accessibility of the sites of three proposed eco-towns

Eco-Town A – Micheldever Station, Hampshire



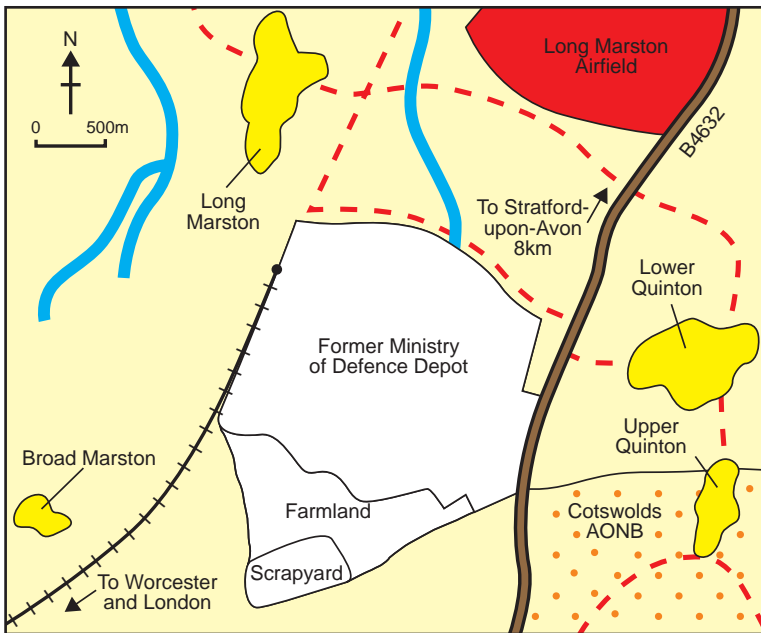
- Passenger railway station
- Bus services to Winchester, Andover and Basingstoke
- 4km from M3 interchange
- Popham Airfield can be used for private flights

Eco-Town B – Shipton, Oxfordshire



- Railway runs through the site but nearest station is Tackley 3km to north
- Bus service to Oxford
- Oxford Airport has private and business flights

Eco-Town C – Middle Quinton, Warwickshire



- Railway link for freight to the Worcester – London line
- Passenger railway from the site to Stratford-upon-Avon closed in the 1970s (route is now a greenway)
- Nearest passenger station is Stratford-upon-Avon
- Infrequent bus services to Stratford-upon-Avon and Evesham
- Long Marston Airfield can be used for private flights

Key to maps











	Motorway
	'A' Road
	'B' Road
	Railway
	Long Distance Footpath
	River or Canal
	Existing Settlement
	Woodland
	Airport or Airfield
	Farmland
	Area of Outstanding Natural Beauty (AONB)
	Green Belt
	Proposed Eco-town

Figure 14 – Eco-Town A – Micheldever Station

Site

- Area 520 hectares in the Hampshire Downs
- Gently undulating with chalk bedrock
- The land has dry valleys (no surface streams) but is in the River Dever drainage basin
- Grade 3A farmland around Micheldever Station village (population 200)
- Habitats of threatened species (e.g. stone curlew, lapwing, brown hare) but biodiversity is quite low due to modern farming methods.

Micheldever Station village



(Source: UKvillages)

Farmland in the area



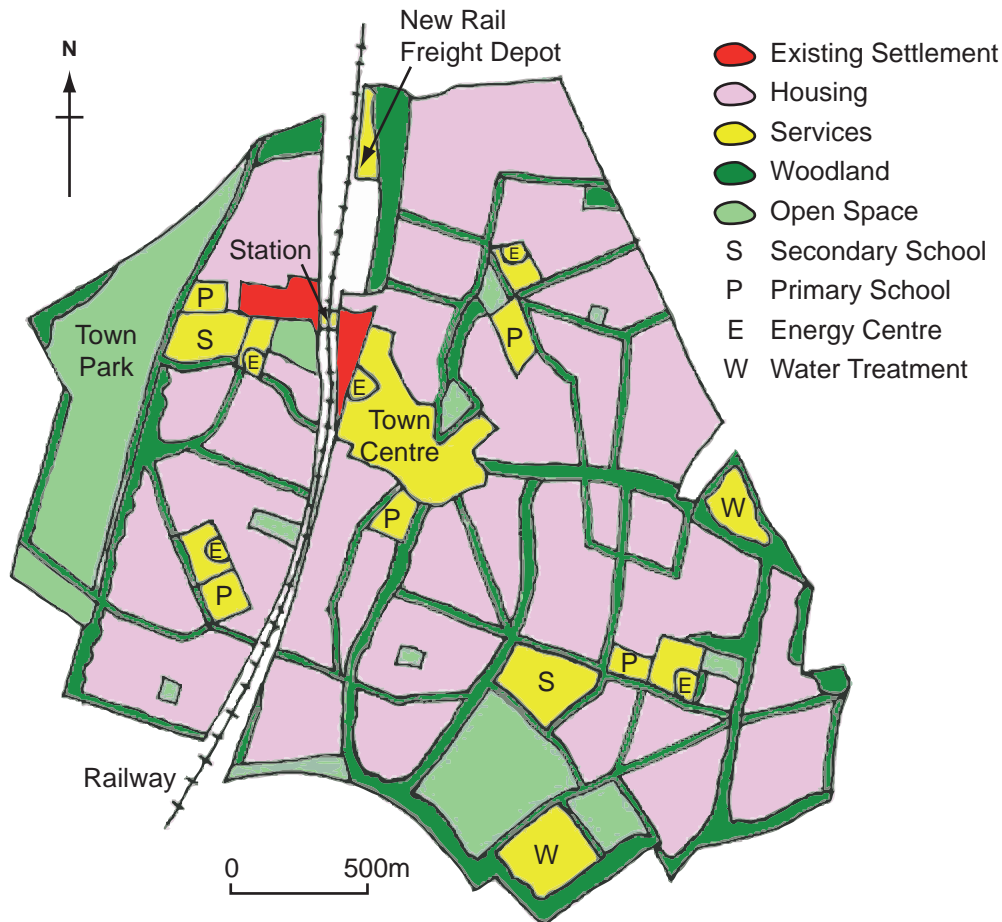
Proposed size

- Population 28,750
- 12,500 dwellings
- 5,000 affordable homes (50% shared-ownership and key worker housing, 50% rented)
- About 16,250 jobs in manufacturing, commerce, retailing, education and other services. Fast internet access will encourage working from home.

Comments by the developer

- We can build the eco-town quickly because the land has only one owner
- Buildings will have the architectural styles and materials of a traditional Hampshire market town but modern levels of insulation
- We will pay for all new infrastructure and the discounts on the affordable housing, so no government spending is needed
- The eco-town will not divert investment away from regenerating Portsmouth and Southampton
- A trust with elected residents will govern the eco-town.

Layout and features



(Source: Copyright 2008 – Eagle Star Estates Limited (modified))

- Four neighbourhoods – each with everyday shops and a mix of dwellings from flats to family houses (terraced, semi-detached and detached)
- Town centre with comparison shops and market selling locally grown food
- All buildings carbon-neutral
- Energy supply for buildings – solar heat and power plus combined heat and power from town waste
- Wind- and solar-powered street lighting
- Compost bins plus separate bins for sorted wastes at all properties
- Biofuel made from waste cooking oil at recycling centre
- Drainage system to include swales and permeable paving
- Water piped from Winchester
- Rainwater harvested in gardens and grey water used in landscaped areas
- Highly treated wastewater fed into chalk aquifer and River Dever
- School sports facilities available for community use
- Community groups e.g. Cubs, Brownies, youth clubs, mother and toddler groups, sports clubs, Women's Institute, University of the Third Age
- Park (including new chalk grassland habitat), playing fields, allotments, orchards and cemetery
- Most farm hedgerows kept and tree belts planted along new roads
- Bus services, footpaths and cycleways throughout town
- Public transport, pedestrians and cyclists given priority in town centre
- Passenger train station upgraded
- Disused railway sidings made into a rail freight depot.

Figure 15 – Eco-Town B – Shipton

Site

- Area 180 hectares in the Cherwell Valley
- Limestone bedrock
- The land slopes gently down to the River Cherwell's alluvial floodplain
- Disused quarry and derelict cement works plus adjacent farmland
- The quarry
 - is a Site of Special Scientific Interest with fossil reptiles (e.g. stenosaurus)
 - is a Country Wildlife Site with grassland, fen and standing water habitats
 - has breeding birds (e.g. turtle dove, peregrine falcon) and water fowl that visit in winter (e.g. green sandpiper, little grebe)
- The farmland is mainly Grade 3 but some in the east is Grade 4.

Disused quarry



(Source: Multimap)

Derelict cement works



(Source: Kilbride Properties)

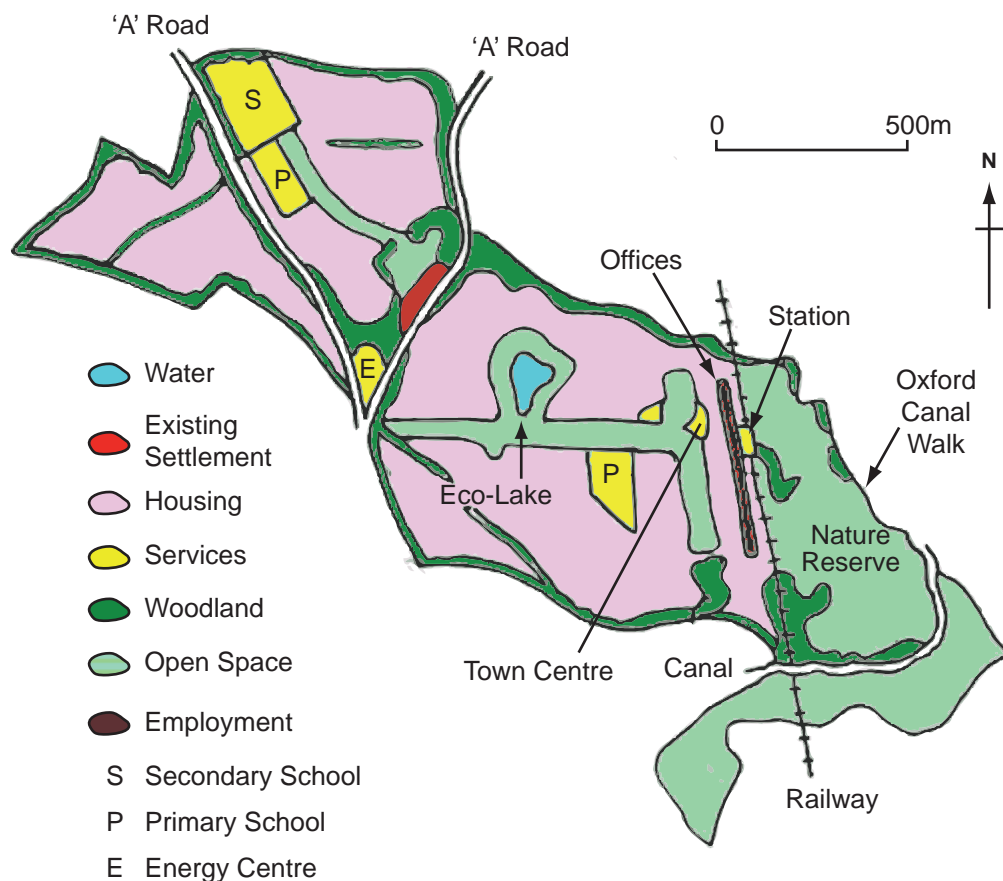
Proposed size

- Population 11,400
- 5,000 dwellings (33% flats and 67% houses)
- 1,500 affordable homes
- About 500 jobs in town centre services plus 2,000 jobs in offices (mainly knowledge-based industries).

Comments by the developer

- After demolishing the cement works we will spend two years excavating the remaining limestone
- Over six to eight years we will fill in the quarry, using rubble from the cement works and rock transported to the site by rail
- We will conserve six exposures of fossil-rich limestone for public viewing
- We will build 3,200 dwellings by 2016 and the rest by 2020
- A trust with local representatives will help develop the eco-town and eventually govern it.

Layout and features



(Source: Kilbride Properties (modified))

- Six neighbourhoods, each with distinctive dwellings: e.g. one- two- and three- bedroom flats near the station; maisonettes and terraced houses by public open spaces; detached and semi-detached houses on the edges of the development
- Town centre with hotel; health/fitness centre; police, fire and ambulance services; farmers' market; everyday and comparison shops
- All buildings carbon-neutral
- Energy supply for buildings – combined heat and power from town's waste (incineration) and local farmers' waste and bio-crops (anaerobic digestion) plus some solar power and ground source heat
- Waste management to emphasise 'reduce, reuse and recycle'
- Town self-sufficient in water from local aquifer and recycling
- Drinkable and recycled water separately piped to dwellings
- School facilities available for community use
- Lake for wildlife and recreation (e.g. fishing)
- Environmental education centre by lake
- Woodland on quarry rim kept for a forest park with bat and bird nesting boxes in the trees
- Some farm hedgerows kept
- Wetland nature reserve and possible marina by canal
- Playgrounds, an open-air gym and allotments
- Car club offering vehicles for hire
- Premium bus services to local towns e.g. Oxford, Banbury
- Own train station with ten-minute shuttle passenger service to/from Oxford
- Park and ride for 500 vehicles next to station.

Figure 16 – Eco-Town C – Middle Quinton

Site

- Area 240 hectares in the Vale of Evesham
- Fairly flat with clay bedrock
- A tributary of the River Avon and some drainage ditches cross the site
- Habitat of rare dingy skipper butterflies
- Former Ministry of Defence army engineering depot (with warehouses, woods and marsh) plus an adjacent scrapyards and grassland
- Freight businesses temporarily using the depot employ 530 people.

Scrapyard and former MOD army depot



(Source: St Modwen Properties Plc and The Bird Group)

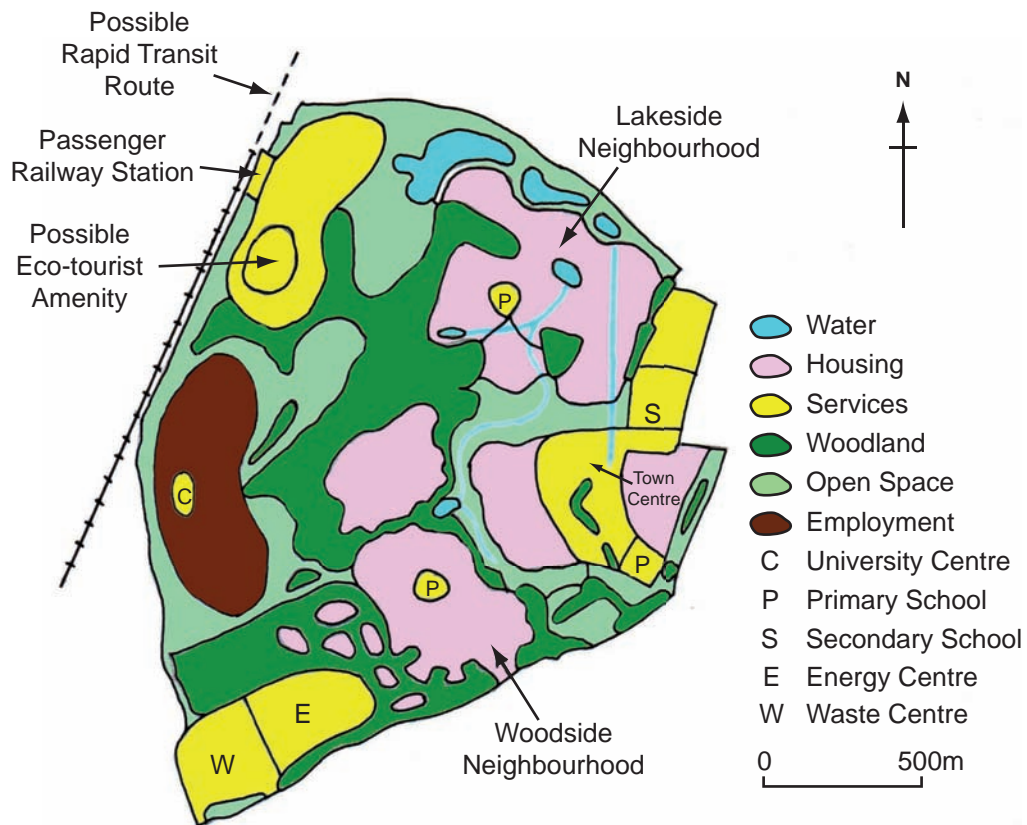
Proposed size

- Population 15,000
- 6,000 dwellings
- 2,000 affordable homes (rented and shared-ownership)
- Space available for more houses if needed
- About 3,000 new jobs in live/work homes; industrial workshops and offices near the station; town centre services; sustainable construction and recycling
- Some firms already on the site will continue to provide employment.

Comments by the developers

- There are just two landowners working together so we can build the eco-town quickly
- It will reduce the pressure for building on floodplain land at Stratford-upon-Avon
- We will pay for extensions to Stratford-upon-Avon's ring road and a new river crossing giving improved access to the M40
- We will pay for traffic calming on the B4632 and in local villages
- A trust with local representatives will govern the eco-town (encouraging local citizenship).

Layout and features



(Source: St Modwen Properties Plc and The Bird Group (modified))

- Three neighbourhoods including the housing near the town centre. Each neighbourhood will have a community centre, everyday shops and a mix of dwellings (houses and flats)
- Local tile and stone for building materials
- Town centre with farmers' market; comparison shops; medical centre; police and fire stations; tree-lined boulevards and pedestrianised core
- All buildings carbon-neutral
- Energy supply for buildings – combined heat and power from town's waste and sewage, plus solar water heating for housing
- All buildings vacuum-connected to waste recycling centre
- Waste recycled (40%) or incinerated for energy recovery (60%)
- New lakes, ponds and reed beds
- Gardens with permeable driveways
- Rainwater automatically harvested (for washing machines and toilets) and grey water reused
- Secondary school's sport facilities available for community use
- Coventry University's new Centre for Eco-Town Sciences
- Existing woodlands kept and new ones planted
- Many allotments and parks
- Cycleways and shuttle buses linking all housing and employment areas
- Electric car pool
- More frequent bus services to local towns
- Own train station with passenger service to the Worcester-London line
- Possible rapid transit (electric/biofuel tram or guided bus) along the greenway to Stratford-upon-Avon
- Possible eco-tourist amenity similar to Cornwall's Eden Project.

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