



c/o Sustrans
2 Cathedral Square, College Green
Bristol BS1 5DD

Eco-Towns Team
Housing and Growth Programme
Department for Communities and Local Government
2/H9 Eland House
Bressenden Place
London
SW1E 5DU

26 June 2008

Dear Sirs

Please find enclosed our joint response to the consultation paper *Eco-towns – Living a Greener Future*. Campaign for Better Transport will be sending in an additional response that will include comments passed to them by members of the public regarding the proposed Eco-towns.

Yours sincerely,

Peter Lipman
Director, Liveable Neighbourhoods
Sustrans

Stephen Joseph O.B.E.
Executive Director
Campaign for Better Transport

Paul de Zylva
Head of
Friends of the Earth England

Steve Melia
Co-ordinator
Carfree UK

SUMMARY

- The transport CLG/TCPA Transport Worksheet sets out an ambitious vision for sustainable transport, which should be achievable under the right circumstances.
- This vision will **not be achievable in the locations short-listed** through the eco-towns process. Small satellite towns, and extensions to existing medium-sized towns, are likely to be characterised by high car ownership and use.
- Car ownership is a key determinant of car use. Around 10% of the adult population lives without a car *by choice*. Research suggests others would be prepared to, under the right circumstances. In current circumstances, to enable substantial proportions of their new residents to live without a car, **eco-towns must be either:**
 - **Integrated towns**, functioning as part of a larger conurbation, or:
 - **Self-sufficient towns**, which are large enough to provide for the great majority of their residents' needs
- Direct access to the **rail network** is an advantage for integrated towns and essential for self sufficient towns. Outside large conurbations, few residents will choose to live without a car if buses provide their only links to the rail network.
- The process has failed to produce a shortlist of sustainable locations because:
 - the original prospectus implied a preference for satellite towns
 - 'previously developed land' and greenbelt policies (sound principles in themselves) have been applied with little consideration for sustainability
 - it relied on bids based on existing landholdings
- The current circumstances of a slowing housing market and rising oil prices presents an opportunity to reconsider the objectives of the programme. We recommend that:
 - The **nine sites** identified as unsuitable on **appendix 1** be **rejected**.
 - The remaining schemes be re-assessed with respect to resilience to rising oil prices, and access to the rail network
 - Proposals should only proceed if they can be served by rail or light rail and avoid expanding the capacity of the trunk road network
 - A **new search** should be undertaken for more sustainable sites. These may be integrated sites identified through the normal planning process or (if necessary) a national search for a larger self-sufficient eco-town
- CLG should apply the eco-town principles to a new programme of **eco quarters** on redevelopment sites **within existing towns and cities**.

1. Transport Objectives of the Eco-Towns

The Transport Worksheet produced by the TCPA for CLG¹ is in our opinion, the most advanced statement on transport policy yet to emerge from a British Government source. The key transport objective for eco-towns, one which is likely to seal its success or failure in the eyes of the general public is to:

“equal or better the modal share of the most sustainable modes achieved in the most sustainable European communities”

25% of journeys by private car is set as an objective for the ‘transport exemplar’ eco-towns, with 40% being “good practice” for the rest. These levels have never been achieved in the UK outside the inner areas of cities and larger towns, so the Worksheet correctly identifies that radical new approaches will be needed.

One of these approaches is the recommendation that: “carfree residential and mixed use...areas should cover a substantial proportion of the eco-town”. The evidence from Europe suggests that carfree areas can facilitate extremely low levels of car use. In Vauban, in Freiburg, for example, just 16% of journeys by residents are made by car². Carfree neighbourhoods also provide better environments for pedestrians, for socialising and particularly for independent movement and active play amongst children.³ More information is available in Carfree UK’s *Guide for Planners and Developers*⁴.

The Minister referred to Vauban⁵ when defending her aspiration for eco-towns to “follow the most ambitious European models where only half of households rely on a car”. As a policy to facilitate this objective, we would commend the Transport Worksheet to anyone concerned with sustainable development. However, it is regrettable that its authors were not asked to comment on the critical questions of eco-town size and location.

2. ‘Sustainable’ New Settlements – A Reality Check

Car dependency is almost universal across suburban and small town England and Wales. The 2001 Census showed 435 wards – just under 5% of England and Wales – where fewer than 40% of working adults travelled to work by car. More than three quarters of these were in London. Of the remaining 86, 60 were in the inner areas of cities and larger towns. Particular local circumstances, such as the proximity of a University, explain the rest.

Research in Oxfordshire⁶ found that even badly designed suburban extensions close to Oxford generate lower car use than medium sized towns where longer-distance commuting by car is more common. A similar pattern has been observed even in regions such as Metropolitan Stockholm where satellite towns are well planned, and transport links are generally good⁷. Although the *centres* of such towns achieve better modal shares than the Stockholm suburbs (due particularly to good rail links), this is counterbalanced by longer journey distances.

The Oxfordshire study also found that **access to the motorway or trunk road network** tends to exacerbate problems of car dependency. Another recent study conducted in Surrey⁸ found that locations within 3km of the motorway and strategic road network were associated with **44% higher transport related energy consumption** than elsewhere in the county.

Many claims have been made about more recent developments in the UK, allegedly breaking the mould of car dependency. **Poundbury**, a suburban extension to Dorchester in Dorset, was an early and influential example. By the end of its first phase the proportion of people driving to work (64.5%) was higher than the averages for England (55%⁹), Dorchester and the (mainly rural) district of West Dorset. Over three quarters of residents made their regular shopping journeys by car or van¹⁰. When we spoke to the planning department of West Dorset Borough Council last year, they believed the situation had not significantly changed as Poundbury had grown.

Cambourne is nine miles west of Cambridge, connected by a regular bus service but no railway. A recently published study¹¹ was conducted last year when just over half of its projected 4,250 dwellings were built. 95% of households owned a car (national average 75%). 56% owned two or more. 81% of the working population drove to work. The author of the report was “sceptical that eco-towns will achieve significantly lower levels of car use even if they have superior links to main centres.”¹²

Although the relationship is not straightforward, car ownership is a key determinant of car use; households with more cars travel further and more often by car.¹³ So if the vast majority of residents decide they need to own a car, attempts to promote sustainable transport through design or persuasion are likely to have only limited success.

3. Under What Circumstances Will People Choose to Live Without Cars?

There has been some recent research into the question of potential demand amongst home buyers and tenants in Britain, for housing in new carfree neighbourhoods. One of these was a recent MSc dissertation¹⁴. The other is a PhD study partly sponsored by the Department for Transport, from which initial findings have been published¹⁵.

Although car ownership is strongly correlated with income, most people who live without a car could probably afford to buy one if they had to¹³. Those who choose to live without a car (‘carfree choosers’) tend to be younger than average, often single, with significantly higher incomes than other non-car owners. There is another group of people who say they would like to give up their car under the right circumstances, *and have actually done this* at some point in the past¹⁵. These people (‘carfree possibles’) tend to be older than the carfree choosers, have higher incomes, and more children. This study did not attempt to quantify the national proportions of these groups. A 2005 study using a representative national sample in Scotland suggested that people who live without a car by choice represent about one in ten of the population¹⁶.

In the more recent study¹⁵, some respondents were asked whether, and under what circumstances, they could see themselves moving to carfree neighbourhoods in eco-towns. The carfree concept was often greeted with approval, even delight, qualified on further questioning by practical considerations, particularly relating to employment –

the principal determinant of location for those of working age. The following quote illustrates one typical line of response:

“But isn’t the issue with them [the eco-towns] that where a lot of them are planned to be, that there’s no transport there. They’re not on railway lines, for example, so you have to have a car. It’s more likely that you’ll need a car to get in and out of them. Is that right?”

4. Implications for the Eco-Towns

A new settlement, once begun, may influence patterns of development in a particular area for centuries to come. When considering where to locate a new settlement we believe that it is important to start from strategic principles rather than short-term tactical questions (e.g. capacity on a particular road or railway line). Potential eco-towns could be classified in one of three categories:

- **integrated towns:** physically close to, and designed to function as part of a larger conurbation, or:
- **self-sufficient towns:** designed to grow over time to become a larger town or city with a higher degree of self sufficiency
- **satellite towns:** related to a larger conurbation but distant from it (or related to an existing small to medium-sized town) with potential for self-sufficiency likely to remain limited by its small size

For the reasons outlined above, we believe new satellite towns will inevitably promote car dependency and should be avoided.

To enable people to live without a car, an integrated town would need to be part of a conurbation of sufficient size to provide for the vast majority of destinations within it. It would also need to ‘plug into’ an existing transport network (rather than a separate ‘in and out’ service). Integrated towns would normally be urban extensions, although some separate locations may fulfil these criteria.

The relationship between size and self-sufficiency is not straightforward, but clearly size does matter. Although existing patterns of movement may change in the future, a 1997 study using National Travel Survey data¹⁷ gives an interesting indication. The lowest levels of car use across the UK were found, in the following order, in:

1. Cities of over 250,000 people
2. Towns of between 25,000 and 50,000 people

Whilst existing settlements of any size can be made more sustainable (and eco-towns could help to pilot methods appropriate for smaller communities) the opportunity exists with new settlements to ‘get it right’ (or wrong) from the beginning. If an eco-town is designed to achieve self sufficiency in the longer term, then it needs to be designed as such from the start, so that the centre is large enough, for example. It also needs to be surrounded by land suitable for future growth without overriding environmental constraints.

Access to mainline rail is important for people choosing to live without a car. In big conurbations, it may be possible to provide a carfree neighbourhood which is not immediately served by rail, providing the neighbourhood is part of a conurbation-wide public transport network. Vauban, for example, is 20 minutes by tram from Freiburg's main railway station – it takes about half that time by bike, which is how more people travel.

For an eco-town growing towards self sufficiency, a frequent rail service is clearly essential. To function effectively without car dependency, this should be in the town centre. The strategy for many of the eco-towns (and for some 'proto-eco-towns' like Cranbrook near Exeter) appears to rely on bus links to railway stations. Outside of big conurbations past experience does not suggest that this is likely to persuade people to give up their cars. Dedicated bus rail links work well for major airports but not for small towns (e.g. Lewes to Uckfield, stopped in 2002 due to lack of demand). Parkway stations, situated on the periphery of towns are a "largely car based market segment".¹⁸

5. How Does the Eco-towns Shortlist Measure Up?

Appendix 1 summarises our assessment of the shortlist. We believe that **nine of the fifteen locations would not be appropriate**, however well designed the individual schemes may be. In two cases, **Leeds** and **Rushcliffe**, specific locations have yet to be determined; both of these could provide suitable locations, subject to the criteria described above.

In four other cases, we believe the general locations may be appropriate for an eco-town, although not as proposed by their promoters.

Pennbury (near Leicester) could conceivably function as an 'integrated town' but, there are some serious challenges. There may be better locations for an urban extension to Leicester, against which Pennbury should be compared. **Appendix 2** is a brief case study of Pennbury.

Weston Otmoor, illustrates the danger of greenbelts causing 'leapfrogging' development. Proximity to the motorway, and its long thin shape, are both likely to exacerbate problems of car dependency. The promoters of this scheme have made an interesting proposal for a tram-train service funded by local road pricing, which we believe has considerable merit, although its viability has yet to be established. We believe the specific location should be compared against others around Oxford – including urban extensions, with the pros and cons of reviewing the greenbelt tested against sustainability criteria. The 'previously developed land' status of the grass airstrip should be disregarded in any analysis.

Rossington could potentially grow towards a self-sufficient town, although there are significant questions around the transport strategy for the site. The current strategy, relying on buses and the East Coast main line would not provide a competitive alternative to the car. An alternative proposal to reopen a freight line with services from Doncaster to Sheffield could potentially provide a better service.

The two proposals for **Marston** are fragmented and would not be consistent with sustainable patterns of movement. A more compact new town centred on a proposed new Milton-Keynes tram-train service could offer a more sustainable option.

In **all the other cases**, the ‘parent’ conurbations are either too distant (Norwich, Cambridge), too small (Bishops Stortford, St. Austell, Lichfield, Bordon,), or both: (Louth, Stratford-on-Avon). Most of these proposals are towards the smaller end of the target range and none of them seem located or designed to grow into self-sufficient towns.

Most of the proposed locations are poorly located with respect to rail – either distant from the site, or peripheral to it. In some cases (St. Austell, Coltishall, Middle Quinton) there are proposals for new rail services, but there are serious questions about the viability of these proposals.

Several of the proposals relate to former airfields. It seems their classification as ‘previously developed land’ has weighed considerably in their favour. We question the grounds for this. Why is it more sustainable to build on a disused airfield in a remote location, rather than agricultural land in a more accessible location?

Several of the individual location summaries in *Greening the Future* imply that ease of access to the strategic road network has been considered as a positive attribute, whereas the evidence cited earlier suggests this is a powerful factor promoting car use. Some of the summaries (e.g. Rossington, St. Austell) and subsequent proposals (Ford, New Marston, Coltishall) mention road building schemes without acknowledging the contributions these would also make to increasing car use.

The current shortlist has been selected mainly from proposals submitted by private land owners, or in some cases local authorities. As there has never been an eco-town programme before, the land holdings of developers and local authorities have been assembled with different objectives under a different policy regime. It is not surprising, therefore, that the process so far has failed to produce a shortlist of sustainable locations.

6. What Should be Done?

There is to be a sustainability appraisal of alternative sites which could also “include sites or locations that are not currently shortlisted”. The current climate with a slowing housing market and rising oil prices offers an opportunity to reconsider some aspects of the programme. We would recommend that:

- The nine sites identified as unsuitable on appendix 1 should be rejected as eco-towns (although some may be appropriate for more limited development).
- The six remaining schemes should be re-assessed with respect to their resilience to rising oil prices, and their access to the rail network, which should be either central to the new town, or (in the case of more integrated urban locations such as Pennbury) linked via light rail or ultra light rail.

- The physical boundaries of those that are confirmed should be determined by the normal planning process, which may mean moving away from the land controlled by the original promoters
- Proposals should demonstrate how they can proceed without expanding the capacity of the trunk road network
- On a slightly longer timescale, a new search should be undertaken for more sustainable sites

7. The Next Stage – More Sustainable Sites

Following publication of the new PPS on eco-towns, there will be two search options for new eco-towns:

1. Through the normal planning process
2. A national search, conducted by Central Government

Our preference is for the first of these, particularly for ‘integrated towns’ which we believe should be the first priority. In this respect the ‘separate and distinct’ criterion should not be interpreted in a way which favours satellite towns over more sustainable urban extensions.

If CLG decides that this is not sufficient, then a national search may be appropriate for a larger more self-sufficient eco-town, following the model of the post-war new towns, but with sustainability as its main objective.

A self-sufficient eco-town must be surrounded by land with no important environmental constraints and have mainline rail at its centre. The example of **Masdar**, eco-city planned in the United Arab Emirates, in which several British companies have been involved¹⁹ shows how a larger eco-development may push the boundaries considerably further than those envisaged for the eco-towns. Masdar is planned to be entirely free from motor vehicles, apart from underground service routes for deliveries.

In either of the above options, it is important that the search process disregards the question of land ownership. Although the private sector may develop the new towns, public sector land assembly mechanisms may be necessary to facilitate this, whether through local authority CPOs or the New Towns Act. In practice, these may only be necessary as reserve measures.

8. Eco Quarters

One of the original objectives of the eco-towns programme was to pilot more sustainable approaches with the potential for replication elsewhere (although *Living a Greener Future* has little to say about this). The key to achieving greater sustainability is mainly to be found in existing urban areas. Some of the eco-town principles, particularly relating to transport and efficient use of land, would be easier to implement in such places. A programme of **eco quarters on larger redevelopment sites** could play an important pilot role in helping to raise environmental standards in existing towns and cities.

We would suggest that the inevitable public outcry against the final shortlist could be countered to some extent if, at the same time, CLG announces a new programme of eco quarters.

REFERENCES

- ¹ Design to Delivery: Eco-Towns Transport Worksheet, T.C.P.A. & CLG, 2008
- ² SCHEURER, J., 2001. Urban Ecology, Innovations in Housing Policy and the Future of Cities: Towards Sustainability in Neighbourhood Communities. PhD edn. Perth: Murdoch University Institute of Sustainable Transport.
- ³ See: MELIA, S., 2006. On the Road to Sustainability - Transport and Carfree Living in Frieburg. Report for W.H.O. Healthy Cities Collaborating Centre. On: www.carfree.org.uk/038
- ⁴ Carfree Development, A Guide for Planners and Developers, available on: www.carfree.org.uk
- ⁵ Eco-Towns Will Not Be Green Ghettoes, But Thriving Communities, Rt. Hon. Caroline Flint, on: www.guardian.co.uk/commentisfree/2008/apr/15/greenbuilding.climatechange?gusrc=rss&feed=environment
- ⁶ HEADICAR, P., 2000. The Exploding City Region: Should it, Can it be Reversed? In: K. WILLIAMS, E. BURTON, M.M. JENKS and M. JENKS, eds, Achieving Sustainable Urban Form. Spon Press (UK), pp. 160-172.
- ⁷ GORHAM, R., 2002. Comparative Neighbourhood Travel Analysis: An Approach to Understanding. In: H.S. MAHMASSANI, ed, In perpetual motion : travel behavior research opportunities and application challenges. Oxford: Pergamon, pp. 237-259.
- ⁸ HICKMAN, R. and BANISTER, D., 2008. Transport And Reduced Energy Consumption: The Role Of Urban Planning 40th Universities Transport Study Group Conference, January 2008
- ⁹ 2001 Census, table KS15P
- ¹⁰ WATSON, G., BENTLEY, I., ROAF, S. and SMITH, P., 2004. Learning from Poundbury, Research for the West Dorset District Council and the Duchy of Cornwall. Oxford Brookes University.
- ¹¹ Lessons from Cambourne, Stephen Platt, Cambridge Architectural Research Limited, 2008, on www.carl.co.uk.
- ¹² Eco-town Test Run, Ben Kochan, Planning magazine, April 11th 2008
- ¹³ Attitudes to Car Use, DfT, 2006
- ¹⁴ LOPEZ, L., 2008. Walkhoods of Tomorrow: Is Britain Ready for Car-free Eco-towns? MSc edn. University of East London, Centre for Alternative Technology.
- ¹⁵ MELIA, S., 2007. Carfree Development and the Paradox of Intensification, 40th Universities Transport Study Group Conference, January 2008. On: www.carfree.org.uk/038
- ¹⁶ DUDLESTON, A., HEWITT, E., STRADLING, S. and ANABLE, J., 2005. Public Perceptions Of Travel Awareness - Phase 3. Scottish Executive Research.
- ¹⁷ Williams, J. (1997b) *A Study of the Relationship Between settlement Size and Travel patterns in the United Kingdom*, Bartlett School of Planning, URBASS Working Paper 2
- ¹⁸ LYTHGOE, W.F. and WARDMAN, M., 2004. Modelling passenger demand for parkway rail stations. *Transportation*, 31(2), pp. 125-151.
- ¹⁹ See, for example: www.fosterandpartners.com/News/291/Default.aspx

Eco-Town Shortlist – Assessment of Locations from a Transport Perspective

Shortlisted Site	Comments	Place Rating	Assessment/Possible Alternatives?
Pennbury	This is the only one of the sites which could conceivably operate as an integrated part of a city conurbation. The main problem is its remoteness from rail. Also concerns that it might be used to justify an Eastern ringroad, which would undermine any attempts at modal shift	?	This is probably not the best location for an urban extension to Leicester – other sites around the city should be considered. The viability of this scheme will depend entirely on transport infrastructure. Bus-based transport (including a shuttle to a remote rail station) would not be sufficient to prevent car dependency.
Manby	Remote from all larger settlements and rail.	X	Not an appropriate location for an eco-town.
Curborough	Lichfield (population 27,900) is not large enough to act as a ‘parent conurbation’. Much travel will be needed outside the area. The site is separated from Lichfield by just over a mile (for what purpose?) The large segregated employment area linked to the A38 would encourage inward commuting by car. No direct access to rail.	X	Not an appropriate location for an eco-town, although a smaller urban extension around one of the railway lines may be possible. Proposals for widening the A38 would cause significant traffic generation around the area as a whole.
Middle Quinton	Stratford on Avon, population 23,676, is not large enough to act as a parent conurbation. The site is in any case distant from all other larger towns. Public transport links to Stratford and Evesham (pop. 22,304) are unlikely to provide for a large proportion of people’s travel needs. Proximity to Cotswolds AONB would restrict growth. Distant from rail: the suggested re-opening of a branch line in current conditions and without a substantial ongoing subsidy, would not provide a service likely to compete with the car.	X	Not an appropriate location for an eco-town.

Bordon-Whitehill	This proposal is a genuine urban extension, but Bordon-Whitehill, population 13,418, is again too small to allow for self-sufficiency. The town is distant from rail. There is a possibility to re-open an abandoned railway, but the local authority promoters have not suggested that they would do this.	X	The camp clearly needs to be redeveloped. Best efforts with bus services, cycle routes etc. can help to moderate its likely car dependency, but not suitable for an eco-town
Weston Otmoor	This long rectangular site is separated from Oxford, but still encroaches on the Oxford green belt (the proposers suggest this be used for employment but not residential development). Its proximity to the motorway would encourage in and out commuting by car. The railway line (at present a little used branch line but with potential for development) is at one extreme end of the site. The promoters have made some interesting proposals for a tram-train system linked to local road pricing, but the viability of this scheme has yet to be demonstrated.	?	The proposed site is not suitable for an eco-town but other possibilities around Oxford could be explored, with the existing greenbelt policy tested against sustainability criteria.
Ford	Littlehampton (pop. 25,593) and Bognor Regis (22,555) are both too small to act as parent conurbations. There is a possibility for reasonably good rail services, but the line would run along the Northern edge of the site. The shape of the site would mean that access to rail for many resident would again be indirect. Scheme is linked to a new A27 Arundel by-pass.	X	The proposed site is not suitable for an eco-town. The linking of the proposal to increased road capacity would undermine any other advantages of its design.
St Austell	The fragmented pattern of these 6 sites separated by several miles, make it neither a town nor an effective urban extension. St. Austell (pop. 22658) is too small to act as a parent conurbation, and the fragments are all distant from it. The proposers have made suggestions about a 'rail loop', although under current circumstances, and without a substantial ongoing revenue subsidy, this would not appear to be viable. Rail use is in any case so low in Cornwall (St Austell 0.667% of journeys to work – 2001 Census) that this is unlikely to make much difference. Although the proposals make use of some former clay workings, they also encompass substantial greenfield areas.	X	There is clearly a case for redeveloping the former clay workings, particularly for employment uses, but the environs of St. Austell are not suitable for an eco-town.

Rossington	The site is too remote to function as part of Doncaster. Rossington (pop. 13,248) is too small to act as a parent conurbation, although whether an enlarged Rossington could grow towards self-sufficiency is debatable. The promoters of this site are currently basing their transport strategy on buses and a new station on the East Coast main line. This is distant from the site, and there are currently no local services along that stretch of the line. A freight line currently skirts the edge of the site. An alternative proposal to reopen this line with services from Doncaster to Sheffield could potentially provide a better service. The consultation document links the proposal to increasing road capacity, and access to the motorway network – both likely to encourage car dependency.	?	There is a case for a redevelopment and regeneration scheme making use of brownfield land around Rossington. As an eco-town it would only be acceptable if rail or a tram-train could be provided through the site itself.
Coltishall	Remote from Norwich, distant from the existing railway line. The promoters are suggesting a new rail link, but under current conditions, without a substantial revenue subsidy, this would not provide a service likely to compete with the car.	X	Not appropriate for an eco-town. Could an urban extension to Norwich provide an alternative?
Hanley Grange	Distant from Cambridge, separated from the railway line. Proximity and easy connection to M11 likely to encourage car dependency. See report <i>Lessons from Cambourne</i> on www.carl.co.uk for a comparison (Cambourne has 95% car ownership, 81% driving to work).	X	Not appropriate for an eco-town. Suggestions that a bus rapid transit system would enable substantial modal shift are unrealistic. Are there possibilities for an urban extension to Cambridge?

New Marston/ Marston Vale	<p>The New Marston proposal is not a town but a series of extensions to housing developments already planned. The proposers stress advantages of road expansion and road access.</p> <p>The Marston Vale proposal would sprawl along the Bedford to Bletchley railway line, which has an hourly service. A suggestion has been made for a tram-train service linking Bedford and Milton Keynes, although the potential funding of this is not yet clear. The Consultation document links the proposal to road capacity increases and easier links to the M1, both of which would promote car dependency. Bedford (pop. 78,991) is on the small side to act as a parent conurbation, although its County Town role may help.</p>	?	<p>The proposers of New Marston have shown little understanding of the eco-town objectives; their proposal should be rejected. The urban form proposed for Marston Vale is too fragmented to allow for sustainable patterns of movement and should also be rejected. A more compact development linked to the suggested tram-train service, might provide a more sustainable basis for an eco-town.</p>
Elsenham	<p>Bishops Stortford (pop. 35,325) is too small to act as a parent conurbation. Other settlements along the M11 corridor are too distant. The proximity to Stansted Airport, although it may provide employment, is unlikely to provide for many non-work journey destinations. Ease of travel by air is also inconsistent with sustainability objectives. Connections to the M11 would encourage car dependency. The site would abut an existing station on the West Anglia rail line.</p>	X	<p>Despite its potential for rail, this is not an appropriate location for an eco-town.</p>
Rushcliffe	Area of search	?	<p>A possibility, particularly if it is linked to an extension of the Nottingham tram system</p>
Leeds City Region	Area of search	?	<p>Possibility for either an urban extension, or a larger more self-contained town. Centrality of rail will be critical, particularly to the latter</p>

Case Study on Pennbury

General

Considered strategically, Pennbury is one of the better locations on the shortlist because it is capable of integration into the city of Leicester, which, with a population of 290,000, is large enough to provide a high degree of self-containment.

However, the choice of site has not been set by environmental ideals but by the extent of the Co-op's land ownership, including an air strip whose status as 'previously developed land' is a questionable criterion.

Pennbury lies in rolling, moderately beautiful countryside at the edge of High Leicestershire. It is also:--

- 5km from Leicester's existing railway station though...
- Potentially quite well served by bus to/from the station and city centre.
- Easily connected by bike to surrounding settlements including the city centre which is well within riding distance.
- Poorly served by existing roads

Rail

The potential for bus or tram links to Leicester station are considered below.

The promoters also propose a new rail link on land they own near Great Glen. Since re-signalling of the Midland Mainline is imminent, they maintain that now would be a good time to consider the idea, including a possible freight depot. However:

- At 5km from Pennbury, the new station would be no closer than Leicester.
- The Midland Mainline is short of train paths now and unlikely to be able to accommodate the time penalty incurred by stops at Great Glen.
- Since re-signalling is already being planned, it is almost certainly too late to introduce an early-stage idea for a new freight depot or station.
- A rail freight depot in the Leicester area would be more suitably sited at a point where the M1 or M69 intersect with the Felixtowe-Birmingham line; gauge enhancement of which is currently being negotiated by Network Rail.

If the new railway station is feasible, this raises one obvious question: why not site the eco-town closer to it? This question would need to be assessed independently from the promoters, whose interest is based on specific landholdings.

Buses/Trams

The proposal includes a suggestion for "a high quality and frequent bus link to Leicester city which, in time, could become a tram link.

If re-engineered and bus-gated, Gartree Road could offer fast bus timings between Pennbury and Stonegate, about half way to the City centre. The remaining trip via London Road would be slower though, overall, the service would still probably be more attractive than from any other peri-Leicester location.

Other bus-links are envisaged including to P&R sites on the A6 and A47 and to Grove and Meridian Parks.

Clearly in itself, Pennbury will not be able to finance a tram system for the city of Leicester, and the funds do not appear to be available from any other sources in the foreseeable future to finance such a system.

Cycling

Safe cycling routes to Oadby, Evington, Houghton-on-the-Hill and Great Glen may readily be built on Co-op land or adjacent highway. Subject to re-engineering, Gartree Road could form part of a good new route to the City Centre besides offering the chance to improve the line of National Cycle Network Route 63.

Roads

Local roads are already congested and many are only country lanes. New links to the A6 and A47 will thus be essential to relieve surrounding settlements. Unless contrived to discourage through traffic, these links would deliver a key phase of the long-disputed Leicester eastern bypass. The promoters are in ongoing discussions with the Highways Agency.

“Closure of key roads in the eco-town to cars at peak periods” is suggested. It is not clear whether this would achieve its aim of reducing car dependency. Discussions are continuing with the developers about the internal design of the scheme, and how these can be brought towards the standards required by the Transport Worksheet.

Conclusion

Although Pennbury is better than most of the other proposed sites, there is a fundamental question-mark over transport infrastructure. If the site forms part of a new eastern bypass for Leicester, additional traffic generated elsewhere would have to be factored in to its carbon footprint, in which case, it is difficult to see how it could be considered as an ‘eco-town’.

The other question relates to public transport. For travel outside Leicester, it is difficult to imagine many people preferring the relatively long bus ride to Leicester station followed by a wait for a train, if the option of travelling by car is available. A genuinely sustainable urban extension to Leicester would require either:

- A new public transport system for the city as a whole (ultra light rail, perhaps?)
or
- A different site on one of the existing rail lines, providing the capacity and cost challenges of a new station can be addressed