Planning for affordable housing in the Cairngorms National Park
Planning for affordable housing in the Cairngorms National Park

by

School of the Built Environment, Heriot-Watt University and Three Dragons Consultancy

A report to Communities Scotland and the Cairngorms National Park Authority

March 2008

Research and Evaluation
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Executive summary

This report presents the results of a commission from Communities Scotland and the Cairngorms National Park Authority to Heriot-Watt University and Three Dragons Consultancy. The study objectives were to:

a) To update the housing needs figures of Heriot-Watt University’s 2006 Cairngorm’s Housing System Analysis report to reflect 2005 house price and income data.

b) To look in detail at three policy options for the Cairngorms National Park area:
   - the introduction of residency criteria for new housing;
   - the use of quotas to help with the supply of affordable rented and low cost home ownership, through Section 75 Agreements;
   - the allocation of various percentages of overall land supply for housing for affordable housing use.

   c) To identify the possible impact of these planning policies on the operation of the wider housing market.

d) To identify the combination of planning policies which will best meet identified housing needs within the Park, without compromising the operation of the market.

e) To identify the contribution these planning policies will make to meeting identified housing needs within the Park area, at proposed levels of development.

The study was largely desk-based, using two previously-tested models. The first, also used in our previous study, looked at housing needs and affordability. The second model was used to estimate residual land values: the bottom line for discussing the viability of development – residential or otherwise. We also looked at relevant experience in Scotland’s other National Park (Loch Lomond and the Trossachs) and in six national parks south of the border. This was done by referring to work undertaken by Communities Scotland and by undertaking in-depth telephone interviews with officers in other national parks. The models drew on data supplied by Communities Scotland and obtained from the Building Cost Information Service. Calibration of the second model drew on discussions between team members and Communities Scotland officers.

The analysis of needs and affordability shows that the overall need for affordable housing opportunities in the park area is 121 units per year. Since this number is not far short of the expected total rate of new building and household growth (130 pa), it may be infeasible to provide this amount of new affordable housing. In this circumstance some recourse may be made to the Open Market Shared Equity Pilot (OMSEP) and similar schemes. OMSEP could meet anything between 40 and 60 units of the overall need. However, it
is also important to consider the role which the private rented sector could play in meeting some of these ‘intermediate’ affordability needs. Private renting would appear to be affordable to many younger households who could not afford to buy, the same group towards whom the Low-cost Initiative for First-Time Buyers (LIFT)\(^1\) scheme is directed.

The intensity of affordability and need pressures tends to be greatest in Upper Deeside, Aviemore and Tomintoul, although the opportunities to respond to these needs in terms of new build are likely to be greatest in Aviemore. Nevertheless, positive needs for social rented and intermediate housing are present in all the areas and this is the case even under alternative assumptions.

The model suggests that in the Park area, social rented provision should be focussed on one-bedroom homes; New Supply Share Equity (NSSE) should be focused on one and two bedroom properties with some limited provision of 3-bedroom properties. House size mix would of course be addressed in Local Housing Strategies, where local authorities may place more emphasis on building in greater flexibility in new stock provision, particularly in social rented provision.

Sensitivity tests provide ready-reckoners for the impact of potential market changes. For example, 20 per cent lower prices would improve affordability by 12 per cent points and reduce need by 11 units per year. Such price differences have a larger effect on the balance between LIFT and Rental needs, with lower prices increasing the scope for NSSE and reducing OMSEP and/or rental needs, and vice versa.

Analysis of development viability shows that a policy of seeking a 25 per cent affordable housing quota would appear the most realistic. At 25 per cent affordable housing, delivery without grant would appear to financially viable (although grant would need to be available if market circumstances change) but at 40 per cent and 50 per cent, grant would appear to be needed for most circumstances and financial viability must be questionable.

There would seem to be little justification for seeking differential proportions of affordable housing on larger and smaller sites.

Different types of affordable housing generate different revenues. This could be evened out by use of the grant system, but where grant is not available it should not be assumed that different types of intermediate housing have a comparable impact on financial viability.

One option for consideration would be to have a common payment to the developer for social rent, intermediate rent and NSSE properties based on the NIC payment for social rent and give grant to the Housing Association to match any deficit between capitalised net revenue and NIC.

\(^1\) Lift is the umbrella term for both New Supply Shared Equity and the Open Market Shared Equity initiatives of the Scottish Government.
The introduction of a local residency requirement for market housing would appear to be feasible, but not if operated in conjunction with an affordable housing policy on the same site.
1 Introduction

1.1 This chapter sets out the research objectives and methods. It outlines the structure of the rest of the report.

Research objectives

1.2 The research was commissioned in January 2007 by Communities Scotland and the Cairngorms National Park Authority (CNPA). The commissioners set the following research objectives:

a) To update the housing needs figures of our 2006 Cairngorm’s Housing System Analysis report to reflect 2005 house price and income data.

b) To look in detail at three policy options for the Cairngorms National Park area:
   - the introduction of residency criteria for new housing;
   - the use of quotas to help with the supply of affordable rented and low cost home ownership, through Section 75 Agreements;
   - the allocation of various percentages of overall land supply for housing for affordable housing use.

c) To identify the possible impact of these planning policies on the operation of the wider housing market.

d) To identify the combination of planning policies which will best meet identified housing needs within the Cairngorms National Park without compromising the operation of the market.

e) To identify the contribution these planning policies will make to meeting identified housing needs within the Cairngorms National Park area, at proposed levels of development.

Research methods

1.3 The research was largely desk-based, using two previously-tested models. The first, also used in our previous study, looked at housing needs and affordability. It brought together information on house prices and house price change, household income, composition and economic activity, new household formation, net migration and social rental sector turnover. Following the commissioners’ brief, we updated the 2005/2006 study with additional house price and income data but we did not seek new data on social sector turnover or waiting lists.

1.4 The second model was used to estimate residual land values: the bottom line for discussing the viability of development, residential or otherwise. It assesses revenue from market housing and a range of affordable
housing options, with and without grant. Using data on development costs, the model then derives a residual land value. No allowance is made for other planning obligations.

1.5 With the agreement of the commissioners, we also looked at relevant experience in Scotland’s other National Park (Loch Lomond and the Trossachs) and in six National Parks south of the border. We did this by referring to work undertaken by Communities Scotland and by undertaking in-depth telephone interviews with officers in other National Parks.

1.6 The models drew on data supplied by Communities Scotland and obtained from the Building Cost Information Service. Calibration of the second model drew on discussions between team members and Communities Scotland officers. This report is based on our analysis, informed by the commissioners and a seminar presentation of interim results. Those present at and contributing to the seminar included the commissioners, representatives of the local authorities in which the Park sits, representatives of developing housing associations, land-owners and private developers.

Structure of report

1.7 Chapter Two of the report discusses results from modelling needs and affordability, providing material to satisfy objective (a). The chapter compares these findings with those of two years ago and discusses how and why the local housing system has changed. Chapter Three discusses results from the modelling of viability. Chapter Four looks at the implications of the results. Together, chapters three and four provide material to satisfy objectives (b) through (e). Chapter Five reviews the findings and summarises issues for the commissioners’ consideration. Appendix One provides further information on the needs and affordability model; Appendix Two provides information on the viability model; and Appendix Three reports on the review of experience of other National Parks.

\[\text{Communities Scotland (2007) Restricted occupancy conditions in National Parks, Précis no 100.}\]
2 Need and affordability

Introduction

2.1 This section of the report covers the updating and refinement of the affordability and need model used in the previous study undertaken for the Cairngorms National Park Authority (CNPA) in 2005. That study referred to data for the period up to 2004. This exercise updates the assessment to 2006. It also reflects certain changes in the forms of affordable housing provision now available (the Low-cost Initiative for First-Time Buyers scheme), while providing more detail on the size breakdown of needs, private rental sector, and other issues. The study parallels the 2006 update of the Local Housing Need and Affordability Model for Scotland produced by Bramley et al for Communities Scotland and the Scottish Executive (SLHNAM). Some of the assumptions and estimates employed in that study, for example in relation to wealth adjustment of affordability, are carried through into this study. Nevertheless, because the methodology for the CNPA study has to be adapted for application to smaller sub-local authority areas, there is not a precise match between the two studies.

House prices

2.2 Following initial discussion with Communities Scotland, an attempt was made to estimate threshold prices which represented particular sizes of dwelling. Although data were provided on this basis, this proved to be unsatisfactory for the small areas with small numbers of transactions within the CNPA area. Therefore, after discussion with the client, it was decided to revert to using overall ‘lower quartile’ as the basis for the market threshold, in line with good practice guidance and the SLHNAM study. The estimates used are an approximation to lower quartile values for 2006, using the data made available to the team (a combination of detailed breakdowns for 2003-05 and local authority level summary measures up to 2006). The relationships between thresholds for particular sizes and the overall lower quartile are based on averages for Scotland. The baseline values derived are shown in Table 1a).

2.3 Threshold prices appear to have risen significantly in the two years since 2004 (by about 36 per cent), although the method of estimation of local lower quartiles is not exactly the same as that used previously. As shown in Table 1(b), eastern areas of the Park (in the Aberdeenshire Council area) have seen a particularly sharp increase. The increase in the Park area as a whole is around twice what has been witnessed nationally. Data from the Department of Communities and Local Government show that across Scotland, non-mix adjusted house prices were 15 per cent higher at the end of 2006 than at the end of 2004. Possibly of greater relevance, first-time buyer prices rose by 17 per cent nationally in the
same period\(^3\). Prices for New Supply Shared Equity (NSSE) units are based on Communities Scotland programme data for 2005/06, inflated by 11.4 per cent (the average increase for this period). These prices do not appear to have increased as much as threshold prices, but this is mainly due to a different way in which these have been calculated in this new study, based on actual recent scheme prices, plus the additional effect of applying a 5 per cent discount in recent schemes.

2.4 What these data show is that the broad owner-occupied housing market trends that we reported in 2005 have continued, if not become more pronounced. The price increase suggests that demand growth has continued to outstrip supply, particularly in the market segment of most concern: the lower quartile or first-time buyer market. Newly-forming households in Cairngorm in 2006 are likely therefore to be finding it harder than ever to access home-ownership.

Table 1a) House Price Estimates for 2006

<table>
<thead>
<tr>
<th>Sub-Area</th>
<th>1 Bed</th>
<th>2 Bed</th>
<th>3 Bed</th>
<th>1 Bed</th>
<th>2 Bed</th>
<th>3 Bed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Deeside</td>
<td>121,745</td>
<td>137,825</td>
<td>186,064</td>
<td>131,931</td>
<td>149,356</td>
<td>199,142</td>
</tr>
<tr>
<td>Aviemore</td>
<td>106,000</td>
<td>120,000</td>
<td>162,000</td>
<td>118,674</td>
<td>134,348</td>
<td>179,131</td>
</tr>
<tr>
<td>Grantown</td>
<td>84,800</td>
<td>96,000</td>
<td>129,600</td>
<td>121,150</td>
<td>137,151</td>
<td>182,868</td>
</tr>
<tr>
<td>Kingussie</td>
<td>81,973</td>
<td>92,800</td>
<td>125,280</td>
<td>111,246</td>
<td>125,939</td>
<td>167,919</td>
</tr>
<tr>
<td>Tomintoul</td>
<td>106,618</td>
<td>120,700</td>
<td>162,945</td>
<td>110,421</td>
<td>125,005</td>
<td>166,673</td>
</tr>
<tr>
<td><strong>CNP Average</strong></td>
<td><strong>100,227</strong></td>
<td><strong>113,465</strong></td>
<td><strong>153,178</strong></td>
<td><strong>118,685</strong></td>
<td><strong>134,360</strong></td>
<td><strong>179,146</strong></td>
</tr>
</tbody>
</table>

Table 1b) House Price Changes 2004-2006

<table>
<thead>
<tr>
<th>Sub-area</th>
<th>2004</th>
<th>2006</th>
<th>% diff</th>
<th>2004</th>
<th>2006</th>
<th>% diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Deeside</td>
<td>91,673</td>
<td>137,825</td>
<td>50</td>
<td>126,246</td>
<td>149,356</td>
<td>18</td>
</tr>
<tr>
<td>Aviemore</td>
<td>92,595</td>
<td>120,000</td>
<td>30</td>
<td>112,863</td>
<td>134,348</td>
<td>19</td>
</tr>
<tr>
<td>Grantown</td>
<td>74,133</td>
<td>96,000</td>
<td>29</td>
<td>120,972</td>
<td>137,151</td>
<td>13</td>
</tr>
<tr>
<td>Kingussie</td>
<td>78,161</td>
<td>92,800</td>
<td>19</td>
<td>118,615</td>
<td>125,939</td>
<td>6</td>
</tr>
<tr>
<td>Tomintoul</td>
<td>81,211</td>
<td>120,700</td>
<td>49</td>
<td>115,673</td>
<td>125,005</td>
<td>8</td>
</tr>
<tr>
<td><strong>CNP Average</strong></td>
<td><strong>83,554</strong></td>
<td><strong>113,465</strong></td>
<td><strong>36</strong></td>
<td><strong>118,874</strong></td>
<td><strong>134,360</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

Note: figures for 2004 are as used in previous study; therefore differences measure a combination of inflation and detailed differences in the way the prices were estimated.

Private rents

2.5 Private sector rents are included in this version of the model. They are based on Housing Benefit referrals to the rent officer service in 2004/05, and are thus representative of the lower/middle part of the market. We have repriced by 10 per cent to 2006, based on evidence that rents were increasing by around 7.5 per cent pa in the two previous years. This rate of change is just above income growth but below house price growth, as we would expect in current market conditions. Rents for a 2 bedroom home range from £66pw in Grantown to £117pw in Upper Deeside.

2.6 Private sector rents were not integral to the traditional affordability model but can be used to calculate incremental affordability of private renting, which may be seen as competing with/substituting for intermediate sector, particularly the Open Market Shared Equity Pilot (OMSEP). An affordability ratio criterion of 25 per cent of net income is applied, with the same secondary criterion (of a minimum residual income margin above the poverty line) which is applied to all options. After discussion with the project advisory group it was decided to make some allowance for private renting as an intermediate affordability option in the Cairngorms, given the high percentage of all housing it accounts for in the Park area, (21 per cent compared to 17 per cent local authority and housing association renting).

Incomes

2.7 Table 2 shows various income estimates from the model, including the mean of all households, mean of all under-35 households, an approximation to the median, and the percentage of households on ‘low’ income. We have not changed the income model or its detailed inputs at all, merely applied an 8.3 per cent uplift based on national data.

Table 2: Income Estimates for 2006 (£ per week, gross)

<table>
<thead>
<tr>
<th>Sub Area</th>
<th>Mean All</th>
<th>Mean under 35</th>
<th>Median All</th>
<th>% low income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Deeside</td>
<td>508</td>
<td>555</td>
<td>421</td>
<td>17</td>
</tr>
<tr>
<td>Aviemore</td>
<td>484</td>
<td>469</td>
<td>398</td>
<td>19</td>
</tr>
<tr>
<td>Grantown</td>
<td>504</td>
<td>524</td>
<td>417</td>
<td>18</td>
</tr>
<tr>
<td>Kingussie</td>
<td>542</td>
<td>538</td>
<td>447</td>
<td>17</td>
</tr>
<tr>
<td>Tomintoul</td>
<td>461</td>
<td>502</td>
<td>381</td>
<td>18</td>
</tr>
<tr>
<td>CNPA Ave</td>
<td>500</td>
<td>518</td>
<td>413</td>
<td>18</td>
</tr>
</tbody>
</table>
Affordability

2.8 Table 3 and Figure 1 present the main affordability indicators, based on under-35 households: percent able to buy based on income; wealth-adjusted percent able to buy; percent able to buy working households (income only); incremental affordabilities for NSSE (@50 per cent equity share of new build price), OMSEP (@ 50 per cent equity share of threshold price), and private renting. These increments are measured from the wealth-adjusted ability to buy in the market. We have applied wealth adjustment factors from SLHNAM model (local authority level). These are now incorporated as standard in this model, although they were not used in the previous Cairngorm model, reflecting the agreed approach in the 2006 SLHNAM study. This is one reason why affordability has not deteriorated as much as might have been expected. The wealth adjustment raises market affordability by 7.3 percentage points in CNPA.

2.9 The rationale for the 50 per cent equity share in NSSE is (a) the possibility of applying up to a 49 per cent equity share under scheme rules, and (b) the possibility of depressing new build prices through the application of occupancy restrictions on the market. Without this, the affordability margin for NSSE would be rather smaller. Private renting affordability is based on an affordability ratio of 25 per cent of net income, a widely-used criterion. This is lower than typical ratios for new homebuyers (around 30 per cent), but renters are not investing in an asset so a lower ratio would be appropriate. No wealth adjustment applies here.

2.10 The overall headline result is that only 29 per cent of new/younger households in the Cairngorms National Park would be able to buy a home in 2006, even allowing for access to wealth and savings. This compares to 38 per cent in the previous study. If we assume that households have no access to wealth/savings (as in 2004), the proportion is only 22 per cent. In other words, only around one new household in five can afford a house on the open market in the Cairngorms. The deterioration reflects the substantial further increase in threshold house prices during this period. Comparing these estimates with others for 2005, affordability in the Park area is well below the national average (41 per cent able to buy based on income alone; 47 per cent with wealth adjustment in 2005, falling to 43 per cent in projection for 2006). In fact, it shows a difficulty that is more severe than that of any local authority area (the lowest percentages were recorded for the capital, with 23 per cent able to buy based on income alone, rising to 31 per cent allowing for wealth)\textsuperscript{4}.

Table 3: Affordability Measures by Sub Area 2006 (percent of under-35 households)

Part (a)  

<table>
<thead>
<tr>
<th>Sub Area</th>
<th>% buy (income)</th>
<th>% buy with-adj</th>
<th>% buy working</th>
<th>Increment NSSE</th>
<th>Increment OMSEP</th>
<th>Increment Priv Rent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Deeside</td>
<td>14.7</td>
<td>23.2</td>
<td>16.7</td>
<td>34.1</td>
<td>34.4</td>
<td>18.4</td>
</tr>
<tr>
<td>Aviemore</td>
<td>14.8</td>
<td>21.8</td>
<td>17.6</td>
<td>29.8</td>
<td>32.2</td>
<td>20.9</td>
</tr>
<tr>
<td>Grantown</td>
<td>29.6</td>
<td>36.6</td>
<td>31.3</td>
<td>20.3</td>
<td>31.1</td>
<td>23.2</td>
</tr>
<tr>
<td>Kingussie</td>
<td>32.8</td>
<td>39.8</td>
<td>34.4</td>
<td>21.7</td>
<td>29.7</td>
<td>18.0</td>
</tr>
<tr>
<td>Tomintoul</td>
<td>16.7</td>
<td>23.7</td>
<td>18.9</td>
<td>35.8</td>
<td>34.7</td>
<td>27.5</td>
</tr>
<tr>
<td>CNPA Ave</td>
<td>21.7</td>
<td>29.8</td>
<td>23.8</td>
<td>28.3</td>
<td>32.4</td>
<td>21.6</td>
</tr>
</tbody>
</table>

Part (b)  

<table>
<thead>
<tr>
<th>Sub Area</th>
<th>% buy with-adj</th>
<th>Increment NSSE</th>
<th>Increment OMSEP</th>
<th>Increment Soc Rent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Deeside</td>
<td>23.2</td>
<td>9.2</td>
<td>24.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Aviemore</td>
<td>21.8</td>
<td>10.4</td>
<td>19.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Grantown</td>
<td>36.6</td>
<td>11.6</td>
<td>8.7</td>
<td>10.8</td>
</tr>
<tr>
<td>Kingussie</td>
<td>39.8</td>
<td>9.0</td>
<td>12.7</td>
<td>8.0</td>
</tr>
<tr>
<td>Tomintoul</td>
<td>23.7</td>
<td>13.7</td>
<td>22.0</td>
<td>0.0</td>
</tr>
<tr>
<td>CNPA Ave</td>
<td>29.8</td>
<td>10.3</td>
<td>16.6</td>
<td>5.2</td>
</tr>
</tbody>
</table>

Note: in this part (a) table incremental affordability for intermediate options (NSSE, OMSEP, private rent) are all measured relative to wealth adjusted ability to buy, and all overlap. In part (b) we show net incremental percentages assuming half of private rental figure.

Figure 1: Affordability Profile by sub-area (younger households, CNPA, 2006)

Note: in Figure 1, the shares for each tenure are net additional percentages able to afford that option but not the one below, private renting being taken at half the amount shown in Table 3(a) are net additional affordability shares.
2.11 Affordability to buy in the market is particularly low in Upper Deeside, Aviemore and Tomintoul, around 22-23 per cent. 37-40 per cent can afford to buy in Grantown and Kingussie sub-areas, while the figure for the CNPA area overall is 29 per cent.

2.12 There is a large potential affordability band for intermediate provision such as LIFT, which overlaps with private renting, in the CNPA area, accounting for around 30 per cent of under-35 households. Under our baseline assumptions, New Supply Shared Equity (NSSE) would be the preferred ownership option relevant to this group, because it is generally assumed to be preferable to use subsidies to promote supply rather than demand. The proportions affording NSSE assume our new supply price estimates are reasonable and that an equity share of around 50 per cent could be offered. In practice, it may not be possible to build this much NSSE provision given overall development numbers, so the Open Market Share Equity Pilot (OMSEP) might provide an alternative. Nevertheless, the proportion who could afford private renting is also quite substantial, at around 22 per cent, and this may be regarded as an alternative option for some of this group. The potential contribution of private rented housing to the supply of affordable housing opportunities is a significant issue currently, in Cairngorm as elsewhere. At the national level, this arises for two reasons: (a) because the exceptionally high level of house prices have not been matched to anything like the same extent by increases in private rent levels; (b) because the supply of private rental lettings has expanded substantially as a result of the massive growth in the ‘buy to let’ phenomenon. Furthermore, CNPA is actively exploring the local expansion of private renting with private landowners and there is some prospect of that being bolstered, on a pilot basis, by capital subsidy. Within our modelling of affordability we have incorporated estimates of the percentage of under-35 households able to afford private renting but not full purchase, as shown in Table 3 and Figure 1 above. These have some limitations, for example relying on rents for Housing Benefit cases rather than the whole market. In addition, it may be argued that private rental tenure does not offer a ‘permanent’ solution to affordable housing need, particularly because it generally provides only short-hold (6 month) tenure, and also because it does not reflect the very widespread aspiration for home ownership. For these reasons, it has been normal practice in our affordability modelling to treat access to buy as the main basis for need estimation. However, in recent studies, such as that for the Scottish Government, private renting as an alternative option has been considered under the heading of sensitivity to alternative assumptions. For this study, we incorporate into the central estimates an assumption that half of those affording private renting would not thereby be in need of subsidised affordable housing.
The results of this are as follows:

- This affects 11 per cent of young households in CNPA.
- The estimated level of net need in CNPA is reduced by 19 units per annum.
  This would displace some of the apparent need for LIFT provision in CNPA.

2.13 The balance of households would need some form of subsidised renting. This group comprises 38 per cent of all under-35 households in CNPA, ranging from 31 per cent in Kingussie to 46 per cent in Aviemore.

**Overall need**

2.14 Underlying the need estimates are demographic numbers including annual household growth (130), new household formation (152), relets (70) and net need (140). In the baseline, as in our previous study, net need is similar in magnitude to household growth, which is assumed to equate roughly to new building (based on recent rates). Note that this is higher than CNPA special household projections commissioned in 2006 (that was about 97 pa), but for consistency, we maintain our figure from the previous work. One reason is A8 migration, not adequately reflected in commissioned projections. All 5 CNPA sub-areas have positive net needs.

2.15 Table 4 shows the four components of need together with the relets supply and an allowance for a contribution from the private rented sector. The difference is net need. The largest element of need is new households unable to afford to buy (107). The next most important source of need is the backlog allowance (62). Smaller numbers are added for migrants and ex-owner occupiers. The overall net need is similar to that shown in the previous study, but somewhat lower mainly because of changes in the assumptions. The worsening in affordability is largely offset by the wealth adjustment to affordability, together with the new allowance for private renting, with lesser changes including adjustments to demographic numbers. Relets estimates have not been changed in this update. The allowance made for private renting is half of the incremental affordability applied to new and migrant households. The final row of the table shows the CNPA figures from the previous study for comparison.
Table 4: Components of Need by Sub-Area 2006

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Deeside</td>
<td>26</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>7</td>
<td>29</td>
<td>27</td>
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<tr>
<td>Aviemore</td>
<td>32</td>
<td>15</td>
<td>4</td>
<td>24</td>
<td>6</td>
<td>22</td>
<td>47</td>
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<td>4</td>
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<td>9</td>
<td>3</td>
<td>17</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Tomintoul</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>1</td>
<td>3</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td><strong>CNPA Total</strong></td>
<td><strong>107</strong></td>
<td><strong>26</strong></td>
<td><strong>14</strong></td>
<td><strong>62</strong></td>
<td><strong>19</strong></td>
<td><strong>70</strong></td>
<td><strong>121</strong></td>
<td></td>
</tr>
<tr>
<td>CNPA 2004 study</td>
<td>97</td>
<td>28</td>
<td>14</td>
<td>62</td>
<td>0</td>
<td>70</td>
<td>132</td>
<td>132</td>
</tr>
</tbody>
</table>

2.16 Figure 2 shows the breakdown of need components against the relets supply (shown as negative, ‘below the baseline’). It can be seen that the absolute numbers are largest in Aviemore and least in Tomintoul. The backlog is a relatively more important part of need in Tomintoul and Aviemore, and less in Upper Deeside and Kingussie. Migration is noticeably more important in Aviemore.

**Figure 2: Components of Need and Supply by Sub-Area, Cairngorm NPA 2006**

![Figure 2: Components of Need and Supply by Sub-Area, Cairngorm NPA 2006](image)

2.17 Figure 3 shows need broken down between social rent and intermediate sector. Social rent need is the largest part of need in Upper Deeside and Aviemore, smaller in Grantown, and zero in Kingussie. This apportionment assumes that maximal use is made of NSSE, and there is scope for intermediate provision in all the sub-areas. On that basis, the scope for OMSEP seems to be mainly apparent in Grantown and Kingussie. In practice, the level of new development may be insufficient to support this amount of NSSE, in which case the Open Market scheme could have a larger role. It should also be remembered that this part of the need overlaps with the potential role of private renting. Although we
have made some allowance for this, we have only assumed that half of those (new and migrant) households who could afford private renting would have their needs met in this way.

**Figure 3 Social Rent and Intermediate Need by Sub-Area (Cairngorm NPA, 2006)**

Breakdown of need by intermediate and social rent

2.18 Table 5 provides a breakdown into NSSE, OMSEP and social rent (non-overlapping), based on affordability in the baseline model. It also shows the assumed potential contribution of private renting, taking half of the number based on incremental affordability. All sub-areas of CNPA show potential need for NSSE, four show need for social renting and three for OMSEP. It should be noted that we are now assuming (unlike previous versions of the model) that proportions of all sources of need (not just new households) may afford intermediate provision.

**Table 5: Breakdown of Needs by Intermediate Sector and Social Renting by Sub-Area, Cairngorm 2006 (based on affordability, ignoring supply limits)**

<table>
<thead>
<tr>
<th>Sub-area</th>
<th>NSSE</th>
<th>OMSEP</th>
<th>Social Rent</th>
<th>Private Rent cont</th>
<th>Net Need</th>
<th>Gross Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Deeside</td>
<td>14</td>
<td>0</td>
<td>15</td>
<td>4</td>
<td>29</td>
<td>36</td>
</tr>
<tr>
<td>Aviemore</td>
<td>22</td>
<td>2</td>
<td>23</td>
<td>6</td>
<td>47</td>
<td>69</td>
</tr>
<tr>
<td>Grantown</td>
<td>10</td>
<td>8</td>
<td>3</td>
<td>5</td>
<td>21</td>
<td>41</td>
</tr>
<tr>
<td>Kingussie</td>
<td>9</td>
<td>5</td>
<td>0</td>
<td>3</td>
<td>14</td>
<td>31</td>
</tr>
<tr>
<td>Tomintoul</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td><strong>CNPA Total</strong></td>
<td><strong>61</strong></td>
<td><strong>15</strong></td>
<td><strong>45</strong></td>
<td><strong>19</strong></td>
<td><strong>121</strong></td>
<td><strong>190</strong></td>
</tr>
</tbody>
</table>

Notes: net need is sum of amounts for social rent and both NSSE and OMSEP, after allowing for a contribution from private renting
2.19 The ratio of NSSE to Social Rent is generally about 4/3 overall although varying between sub-areas. This assumes maximising of NSSE, an approach which may be justified on grounds of lower cost, greater feasibility in planning terms, and the general popularity of home ownership. A significant comment here is that only two forms of provision, NSSE and Social Rent, are a potential claim on new build and planning quotas. This could suggest that some of the need for NSSE could be diverted into OMSEP (or private rental), given that the affordability of these two schemes largely overlaps. If we do not allow for this, the quotas of affordable need within new build developments could be unachievably high in most areas. With the split shown in Table 5, the overall affordable quota would be 84 per cent for CNPA, ranging from 44 per cent in Kingussie to 136 per cent in Upper Deeside. (The 'interpretation' of this figure being that most private sector new-build, and in some areas more, would have to be set aside for affordable housing). Chapter 3 of this report discusses the financial viability of different affordable quotas, suggesting that an upper figure of around 45 per cent might be viable with grant available, or 25 per cent without grant. If 45 per cent was applied to all development (130 pa) it could yield 58 units per year. If 45 of these were used for social rent (Table 5 need), 13 would be left for NSSE. The balance of need for NSSE could then be addressed through OMSEP, justifying provision of 15 + (61-13) =63 units. If new affordable build was split 4:3 in favour of NSSE, as suggested above, then the numbers of NSSE and OMSEP would be 33 and 43 respectively, although this would leave 20 units per year of unmet need for social renting. Changing other assumptions would modify the exact numbers produced by this kind of logic. For example, a higher private rented contribution would reduce LIFT need by 19 units per year, to 44 units; a lower new build quota of 25 per cent would raise OMSEP to 76 units per year, while combining this with a higher private rented contribution would reduce it to 57. In short, supply constraints could justify a larger OMSEP programme than suggested by the affordability analysis alone, perhaps in the range 40-60 units pa, assuming grant availability to support this activity.

2.20 A policy conclusion from this situation may be that use should be made of OMSEP to provide access to the existing stock. A further conclusion may be that additional development is required in some areas. However, it may also be inferred that more households are likely to go into private renting, than we have assumed, either under their own steam or encouraged by local authority (see below). Shortage of affordable supply may also affect the composition of migration flows (also discussed further below).
Size mix

2.21 Figure 4 looks at a size breakdown for social renting need and intermediate need (including OMSEP) by sub-area across CNPA. The model and data we have are capable of yielding size breakdowns. The affordability model works from seven household types and allocates to three bedroom sizes. We have waiting lists broken down, and some national/regional survey evidence to inform an assumed breakdown of relets (also of need from former owners). The model makes fairly conservative assumptions about size requirements. It may be argued that 1 bed-roomed units are going out of favour; it may make sense to combine 1 and 2 Bedroom in the planning guidance, to deal with this point. The general pattern of results in terms of size mix seems robust to the price sensitivity test and the alternative demographic assumptions.

2.22 Overall, these results seem sensible and usable. They suggest that for the CNPA, rental provision should be focussed on 1 bedroom homes (with some larger units in Deeside), and NSSE should focus on one and two bedroom properties, with some provision of three bed room properties.

Figure 4: Size Mix of Needs by Sub Area, CNPA 2006
Table 6: Size mix of social rent and intermediate needs by sub area, CNPA 2006 (number per year)

<table>
<thead>
<tr>
<th>Sub-Area</th>
<th>Rent 1 bed</th>
<th>Rent 2 bed</th>
<th>Rent 3 bed</th>
<th>LIFT 1 bed</th>
<th>LIFT 2 bed</th>
<th>LIFT 3 bed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Deeside</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Aviemore</td>
<td>16</td>
<td>1</td>
<td>0</td>
<td>11</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>Grantown</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Kingussie</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Tomintoul</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total CNPA</strong></td>
<td><strong>38</strong></td>
<td><strong>5</strong></td>
<td><strong>4</strong></td>
<td><strong>33</strong></td>
<td><strong>40</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

Note: LIFT here refers to combination of NSSE and OMSEP. Numbers add to more than net total in Table 5 due to imbalances between areas and size groups.

**Sensitivity tests**

2.23 As in previous and similar studies we report on the sensitivity of model results to changes in certain key assumptions. We confine this to a relatively limited number of key differences. We have tested sensitivity to the following changes:

- House prices being 20 per cent lower across the board.
- House prices being 20 per cent higher across the board.
- The price of NSSE being 20 per cent higher.
- Different treatment of migrant affordability, as discussed in Appendix 1.
- Different assumption about the use of private rented housing as an affordable alternative.

2.24 We first look at the impact of prices being 20 per cent lower across the board (new and second-hand). This is, as it happens, roughly the level prevailing two years earlier in 2004 (relative to incomes). It might also be seen as a reasonable ‘medium term’ figure for the coming period, if one were to take a view that the current market is around the top of a cyclical boom, which is one possibility. The headline results from 20 per cent lower prices are:

- A 12 per cent point improvement in affordability (access to buy) to 41 per cent.
- A fall of 11 units (16 per cent) in net need per year.
- Still significant needs in all 5 CNPA sub-areas.
- A shift in the balance of need between social rent (down 16) and OMSEP (down 11) in favour of NSSE (up 16).
- Size mix balance is robust to this change.
[Note the rather different tenure balance changes than previously reported; when prices fall, not only does NSSE become affordable by more people, but less of those people are able to afford PRS so the assumed private rented sector contribution falls].

2.25 It should be noted that these figures may somewhat underestimate the impact on net needs because, in this application of the model, relets have been assumed to continue at an unchanged rate. It is arguable that faced, with lesser ability to buy a house, households currently in social renting would be likely to stay for longer. Statistical modelling work reported in Bramley et al (2006) indicates that relet rates relate inversely to house prices.

2.26 Some would argue that the current high level of house prices, and price increases, may be set to continue, because they represent national economic fundamentals (steady economic growth, low interest rates, a larger buy to let sector, etc) and the persistence of local demand and supply characteristics. The results of 20 per cent higher prices are a rough mirror image of those just summarised:

- A 7.8 per cent point deterioration in affordability (access to buy) to 21 per cent
- A rise of 7 units (6 per cent) in net need per year
- A shift in the balance of need away from NSSE (down 32) towards OMSEP (up 20) and social renting (also up 20)
- More households would go into private renting as well, rather than buying
- Again, size mix does not change very much in relative terms

2.27 At our presentation of interim results, it was suggested that the assumed prices for purchase of HA/RSL and LIFT properties may be on the low side, although these were based on fairly recent programme data for the wider region. We therefore test the impact of assuming a 20 per cent higher level of these prices with the other prices remaining unchanged:

- The price of a new build 2-bed unit would be around £161,250 compared with £134,350 in the baseline.
- There would be no impact on market affordability or overall net need.
- The incremental affordability of NSSE would fall by 9.3 per cent points, from 28.3 per cent to 19 per cent.
- The numerical scale of need for this form of new provision would fall by 28 units pa (from 61 to 33).
- However, this would be balanced by an increase of 28 units pa in the need for OMSEP (from 15 to 43).
- As a by-product of this shift from new build to open market provision, the ‘quota’ of new affordable need over all new dwellings would drop from 82 per cent to 60 per cent.
2.28 The headline results from the alternative (more complex) treatment of migrant affordability (as explained in Appendix 1) are as follows:

- A rise of 4 units (3 per cent) in net need per year.
- This change is entirely in the migrant need category – there are no effects on the other sources of need or supply.
- The migration component of need remains positive in all sub-areas (except Tomintoul), and needs are still positive in all 5 CNPA areas.

2.29 We now incorporate in the baseline an assumption that half of those younger new and migrant households who could afford private renting are able to meet their needs in this way. As a further sensitivity test, we can consider the effect of assuming that all of this group could be suited in this tenure. The effects of this include:

- A fall of 19 units (16 per cent) in net need per year, to 102 units
- An equal fall of 19 units in NSSE need (from 61 to 42 units)
- A fall in the affordable need ‘quota’ from 82 per cent to 67 per cent
- The largest numerical impact is in Aviemore and Grantown

2.30 In the light of these findings, we believe the CNPA should give serious consideration to the implications of changes in the supply of private renting and its relative affordability in formulating its local planning policies for housing.

2.31 The broad impact of certain other changes in assumptions and inputs to the model may be judged relatively easily without formally running through the model. For example, if the level of net relets fell by 20 percent, that would be a reduction of 14 units pa, and would have a one-for-one impact on net needs (14 units additional need, 14 per cent of baseline net need).

Conclusions

2.32 It is difficult to derive robust and up to date house price measures specific to different sizes and types of dwelling for small areas. The measures used in practice are comparable with those used in national studies and recommended for local studies. These suggest a significant rise in entry-level prices in Cairngorm over the recent years, leading to a deterioration in affordability. However, the impact of this is modified by taking account of some households’ access to wealth and savings. Despite this, less than 30 per cent of younger new households in CNPA can afford to buy in the market.

2.33 There appears to be substantial scope for provision of affordable intermediate home ownership opportunities such as LIFT, although this is affected quite sensitively by the price at which these can be delivered and the view taken about private renting.
2.34 The new estimate of overall need for affordable housing opportunities in CNPA is 121 units per year. Since this number is not far short of the expected total rate of new building and household growth (130 pa), it may be infeasible to provide this amount of new affordable housing. In this circumstance some recourse may be made to OMSEP and similar schemes. OMSEP could meet perhaps between 40 and 60 units of the overall need. However, it is also important to consider the role which the private rented sector could play in meeting some of these 'intermediate' affordability needs. Private renting would appear to be affordable to many younger households who could not afford to buy, the same group towards whom LIFT is directed.

2.35 The intensity of affordability and need pressures tends to be greatest in Upper Deeside, Aviemore and Tomintoul, although the opportunities to respond to these needs in terms of new build are likely to be greatest in Aviemore. Nevertheless, positive needs for social rented and intermediate housing are present in all the areas and this is the case even under alternative assumptions.

2.36 The model suggests that, in CNPA, social rented provision should be focussed on one-bedroom homes; and NSSE should focus on one and two bedroom properties with some provision of three bedroom properties.

2.37 Sensitivity tests provide ready-reckoners for the impact of potential market changes. For example, 20 per cent lower prices would improve affordability by 12 per cent points and reduce need by 11 units per year. Such price differences have a larger effect on the balance between LIFT and Rental needs, with lower prices increasing the scope for NSSE and reducing OMSEP and/or rental needs, and vice versa.
### 3 Viability analysis and analysis of policy options

#### Analysis carried out

3.1 This analysis is based on the impact of affordable housing on the residual value of mixed tenure housing schemes. The analysis uses a residual development appraisal approach to calculate the difference between scheme revenue and scheme cost. What is left, after the affordable housing and any other planning contributions have been accounted for, is a net residual site value which is broadly what the land owner(s) might expect to receive from the developer who is developing the scheme.

3.2 The analysis is based on a 30 unit site and an 8 unit site. The 30 unit site is assumed to require 1 hectare of land (30 dph). The 8 unit site is assumed to require 0.25 hectares (32 dph). This difference in density has a small but important impact on viability.

3.3 The 30 unit site is tested against 50 per cent, 40 per cent and 25 per cent affordable housing. The affordable element is a mix of social rented and NSSE in the ratio of 60:40. The 8 unit site is tested at 25 per cent affordable housing, i.e. 2 units one of which is assumed to be social rented and the other is either NSSE or Intermediate Rent.

3.4 In each case the following tests were undertaken:

- Residual (land) value at base house prices and build costs.
- Residual value assuming a 20 per cent increase in house prices.
- Residual value assuming a 20 per cent decrease in house prices.
- Residual value assuming a 10 per cent increase in build costs.

#### Mix of units

30 unit scheme at 50 per cent affordable housing

<table>
<thead>
<tr>
<th>50 per cent affordable</th>
<th>Sale</th>
<th>Social Rent</th>
<th>NSSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 bed flat</td>
<td>1.67</td>
<td></td>
<td>1.25</td>
</tr>
<tr>
<td>2 bed flat</td>
<td>3.33</td>
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<td>2.5</td>
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<tr>
<td>2 bed house</td>
<td>3.33</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>3 bed house</td>
<td>5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>4 bed house</td>
<td>1.67</td>
<td>1.25</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>8.75</strong></td>
<td><strong>6.25</strong></td>
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</tbody>
</table>
30 unit scheme at 40 per cent affordable housing

<table>
<thead>
<tr>
<th>40 per cent affordable</th>
<th>Sale</th>
<th>Social Rent</th>
<th>NSSE</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>2 bed house</td>
<td>4</td>
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<td>6</td>
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</tr>
<tr>
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<tr>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
<td><strong>7</strong></td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>

30 unit scheme at 25 per cent affordable housing

<table>
<thead>
<tr>
<th>25 per cent affordable</th>
<th>Sale</th>
<th>Social Rent</th>
<th>NSSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 bed flat</td>
<td>2.5</td>
<td></td>
<td>0.625</td>
</tr>
<tr>
<td>2 bed flat</td>
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<td>5.0</td>
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<td>1.25</td>
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<tr>
<td>3 bed house</td>
<td>7.5</td>
<td>2.5</td>
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</tr>
<tr>
<td>4 bed house</td>
<td>2.5</td>
<td>0.625</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>22.5</strong></td>
<td><strong>4.375</strong></td>
<td></td>
</tr>
</tbody>
</table>

8 unit scheme at 25 per cent affordable housing

<table>
<thead>
<tr>
<th>50 per cent affordable</th>
<th>Sale</th>
<th>Social Rent</th>
<th>NSSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 bed house</td>
<td>3</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>3 bed house</td>
<td>3</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>4 bed house</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6</strong></td>
<td><strong>1</strong></td>
<td><strong>1</strong></td>
</tr>
</tbody>
</table>

3.5 In the case of the 30 unit scheme, the scenario testing produces fractions of dwellings. This is appropriate for economic analysis but in real life developers and planners would have to negotiate in whole numbers of units. On small schemes with a complex mix of tenures and house types this makes it difficult to achieve precise percentages of affordable housing.

**Base assumptions**

3.6 Base house prices are as follows

<table>
<thead>
<tr>
<th>House price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 bed flat</td>
</tr>
<tr>
<td>2 bed flat</td>
</tr>
<tr>
<td>2 bed house</td>
</tr>
<tr>
<td>3 bed house</td>
</tr>
<tr>
<td>4 bed house</td>
</tr>
</tbody>
</table>

3.7 Base build costs are £923 per sq m for flats and £738 per sq m for houses. These are build costs only and total development costs for sale flats are £1500 per sq m and for sale houses are £1300 per sq m.
Development costs for affordable units are lower because there are no marketing costs and finance costs and profit margins are lower. Equivalent development costs for social rented flats are £1160 per sq m and for houses £925 per sq m. No allowance was made for exceptional development costs associated with remote locations, opening up large greenfield sites or development of contaminated or otherwise difficult to develop brownfield land.

3.8 Unit sizes (and revenue per sq m) are as follows:

<table>
<thead>
<tr>
<th>Unit size</th>
<th>Revenue per sq m</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 bed flat</td>
<td>£2,460</td>
</tr>
<tr>
<td>2 bed flat</td>
<td>£2,010</td>
</tr>
<tr>
<td>2 bed house</td>
<td>£1,725</td>
</tr>
<tr>
<td>3 bed house</td>
<td>£1,980</td>
</tr>
<tr>
<td>4 bed house</td>
<td>£1,810</td>
</tr>
</tbody>
</table>

3.9 It will be seen that higher costs per sq m for the development of flats are more than outweighed by higher revenue per sq m. This advantage is compounded by the fact that typical densities for flats are higher than for houses. Revenue (and hence residual value) is therefore sensitive to the mix of dwellings provided.

Planning obligations

3.10 It was assumed that there were no planning obligations associated with the site. This may well be appropriate in the case of development of 8 or fewer dwellings. However for larger developments within existing settlements experience elsewhere suggests that the sum of £5-10,000 per dwelling may be appropriate (i.e. £150-300,000 for a 30 unit scheme of approximately 1 hectare).

3.11 For large new settlements with significant infrastructure cost tariffs of £15-35,000 per dwelling (excluding affordable housing) are possible in the light of experience from elsewhere.

Residual value per hectare

3.12 Table 1 below looks at the impact on residual value of providing varying proportions of affordable housing within a 30 unit scheme of flats and houses on a 1 hectare site. It shows how the economics of development are affected by changes in house prices and build costs. Each scheme is modelled with and without grant on the social rented housing. Revenue from NSSE is based on the 50 per cent share purchased which produces a residual value which is comparable with that generated by a social rented dwelling with full grant (see paras 65-67 for further discussion of this issue). We also model the effect of an average 75 per cent share purchase for NSSE.
3.13 In looking at the results, the central question has to be, ‘at what point is a residual value considered to be so low that a landowner will not release their land and a developer would not take the risk of development’. There is no single figure which defines this minimum and it is by looking at the relative residuals derived from the testing that we can comment on their implications.

**Key messages from Table 1 are:**

3.14 There are significant differences in residual values for the different percentages of affordable housing.

3.15 Similarly, residual values are very sensitive to changes in house price, the more so the higher the percentage of market housing and NSSE units.

3.16 At 25 per cent affordable housing, even without grant, residual values are all positive and with a 20 per cent increase in house prices, are well in excess of £1m. However, when house prices are reduced by 20 per cent, the residual reduces significantly and without grant, falls to a level where it must be highly dubious that development would ever proceed,
even with grant, the residual is very much lower than with the base prices.

3.17 At higher percentages of affordable housing, the residual values fall off sharply.

3.18 If NSSE is sold at a 75 per cent share instead of 50 per cent the effect is to increase the overall residual, from £660,000 to £820,000 in the 40 per cent case. The increase in residual value is larger for the scheme with 50 per cent affordable housing because there are more NSSE units and lower in the 25 per cent case because there are fewer NSSE units.

3.19 With the 50 per cent scenario, at base market values, without grant, the residual is barely positive. With higher build costs, the residual is significantly negative. With the lower market values, the residual falls away to -£330,000. Together, the sensitivity testing suggests that at 50 per cent, schemes would only ever work with grant and would, even then, be very sensitive to changes in value and/or costs.

3.20 With the 40 per cent scenario, the residual, at the base house prices and with the higher house prices, is relatively strong. But with a fall in house prices or a rise in build costs, they become very marginal without grant.

3.21 In summary, at 25 per cent affordable housing, delivery without grant would appear to be a realistic option (although grant would need to be available if market circumstances change) but at 40 per cent and 50 per cent, grant would appear to be needed for most circumstances, although specific schemes with very favourable values, could be viable without grant.

3.22 At base build costs and house prices, a 100 per cent market scheme generates a residual value of about £1,260,000 per hectare.
Table 2 25% affordable units: 30 units (mix of houses and flats) at 30 dph compared with 8 houses at 32 dph (residual value per hectare)

<table>
<thead>
<tr>
<th>25% affordable</th>
<th>30 units</th>
<th>8 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base house prices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With grant on SR</td>
<td>£890,000</td>
<td>£1,010,000</td>
</tr>
<tr>
<td>No grant</td>
<td>£670,000</td>
<td>£880,000</td>
</tr>
<tr>
<td>75% share for NSSE (grant on SR)</td>
<td>£990,000</td>
<td>£1,140,000</td>
</tr>
<tr>
<td>20% increase in house prices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With grant on SR</td>
<td>£1,420,000</td>
<td>£1,590,000</td>
</tr>
<tr>
<td>No grant</td>
<td>£1,200,000</td>
<td>£1,400,000</td>
</tr>
<tr>
<td>20% decrease in house prices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With grant on SR</td>
<td>£360,000</td>
<td>£430,000</td>
</tr>
<tr>
<td>No grant</td>
<td>£140,000</td>
<td>£240,000</td>
</tr>
<tr>
<td>Base house prices but build costs increase by 10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With grant on SR</td>
<td>£680,000</td>
<td>£790,000</td>
</tr>
<tr>
<td>No grant</td>
<td>£460,000</td>
<td>£600,000</td>
</tr>
</tbody>
</table>

Key messages from Table 2:

3.23 The 8 unit scheme consistently produces a higher residual value per hectare than the 30 unit scheme. This is due both to the difference in density and in the mix of units (the 8 unit scheme contains only houses and although houses are less profitable per sq m this is outweighed by the fact that they are larger). As a comparison, at base house prices and build costs a scheme of 8 flats (1 and 2 beds) produces a residual value per hectare of £740,000 with grant and £540,000 without grant. If the NSSE product is sold at a 75 per cent share instead of a 50 per cent share the residual value rises.

3.24 In this example build costs have not been specifically adjusted to allow for higher build costs for smaller sites. This is because available evidence (see Appendix 4) suggests that there is no magic cut-off point at which small schemes become more expensive to develop than larger schemes in the same location. The impact of higher build costs can be assessed by comparing the final option in the table which models an increase in build costs of 10 per cent. In this case the 8 unit scheme with grant produces a value of £790,000 per hectare compared with £890,000 per hectare for the 30 unit scheme with grant at base build costs.
3.25 The impact of differences in overall mix and density has implications for the mix of affordable housing sought and for the level of subsidy required. This suggests that each individual scheme should be appraised on its merits.

Modelling different types of intermediate housing

3.26 The proposed plan policy (and the housing market assessment) recognise a potential role for intermediate rented housing, although we have not found any examples of this being formally provided through the planning system.

3.27 However, intermediate rented housing (without grant) produces a lower revenue than NSSE at 50 per cent. The figures below relating to a 2 bed house (market value £132,000) illustrate this. It should be noted that revenue from the NSSE unit will vary with house prices:

- Intermediate rent £68 per week (market rent less 20 per cent) revenue is £32,671.
- At market rent (£85) revenue is £45,762.
- 50 per cent NSSE produces a revenue of £66,000.
- 75 per cent NSSE produces a revenue of £99,000.
- Social rent with grant produces a revenue of £66,474.
- Social rent without grant produces a revenue of £18,809.

3.28 The impact on the residual (per hectare) of changing 1 unit from NSSE to intermediate rent on a scheme of 8 units (i.e. 12.5 per cent of all units) is illustrated in the table below:

Table 3 The effect on residual value of changing from NSSE to Intermediate Rent on an 8 unit scheme of which 1 unit is intermediate tenure and 1 unit social rented.

<table>
<thead>
<tr>
<th>25% affordable</th>
<th>Residual value per hectare</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 unit NSSE</td>
<td></td>
</tr>
<tr>
<td>NSSE with grant on SR (50% share purchased)</td>
<td>£1,010,000</td>
</tr>
<tr>
<td>NSSE No grant on SR</td>
<td>£880,000</td>
</tr>
<tr>
<td>1 unit Intermediate Rent</td>
<td></td>
</tr>
<tr>
<td>Intermediate rent with grant on SR</td>
<td>£760,000</td>
</tr>
<tr>
<td>Intermediate rent no grant on SR</td>
<td>£569,000</td>
</tr>
</tbody>
</table>

3.29 This would suggest that whilst it may be reasonable to seek to secure intermediate rented housing within affordable housing the assumption should not be made that different tenures of intermediate housing have the same impact on financial viability.
3.30 The above figures also illustrate a point about the assessment of grant for NSSE. In the example quoted revenue from the sale of 50 per cent of a property under NSSE is not dissimilar to payment under the NIC process for social rent. If it is assumed that the developer should receive the same payment for all types of affordable housing regardless of tenure, then it is difficult to see a reason for giving grant to the NSSE unit which will then be passed on to the developer in the form of a higher land value. However the NIC process explicitly assumes that grant will be based on development cost including land value. How that land value is assessed will determine the level of grant required and the relationship between payments to developers for rent and NSSE properties. There is therefore some uncertainty in setting the level of grant for NSSE. Throughout our modelling we have assumed no grant for NSSE.

3.31 In this context it is worth noting that total provision of affordable housing in the period from 2004-07 in the Cairngorms area (which falls within Grampian and Highlands and Islands Area Offices of Communities Scotland) was 16 units pa. An increase in funding would be required to sustain a larger development programme which was dependent on grant input at similar levels.

3.32 Clarity about availability and level of grant is an important factor in negotiation of affordable housing. One option for consideration would be to have a common payment to the developer for social rent, intermediate rent and NSSE properties based on the NIC payment for social rent and give grant to the Housing Association to match any deficit between capitalised net revenue and NIC.

Discounted market housing

3.33 One policy option which has been considered is to restrict market housing to local residents. Evidence from elsewhere (see Appendix 3 for experience of other national parks) suggests that this will reduce house prices by approximately 25 per cent.

3.34 The model demonstrates that on a 30 unit site of 1 hectare at base build costs and house prices, a 100 per cent market scheme generates a residual value of about £1,260,000 per hectare.

3.35 If market values are depressed by 25 per cent the residual falls to £450,000 (i.e. the effect is comparable with seeking 50 per cent affordable housing with grant (£510,000 see table 1)).

3.36 There may well be merit in seeking to operate a policy which restricts market housing to local people, however its financial implications are considerable and it would inadvisable to operate in conjunction with a policy which sought affordable housing on the same site.
Viability analysis and analysis of policy options conclusions

3.37 A policy of 25 per cent affordable housing would appear the most realistic. At 25 per cent affordable housing, delivery without grant would appear to financially viable (although grant would need to be available if market circumstances change) but at 40 per cent and 50 per cent, grant would appear to be needed for most circumstances and financial viability must be questionable.

3.38 There would seem to be little justification for seeking differential proportions of affordable housing on larger and smaller sites.

3.39 Different types of affordable housing generate different revenues. This could be evened out by use of the grant system, but where grant is not available it should not be assumed that different types of intermediate housing have a comparable impact on financial viability.

3.40 One option for consideration would be to have a common payment to the developer for social rent, intermediate rent and NSSE properties based on the NIC payment for social rent and give grant to the Housing Association to match any deficit between capitalised net revenue and NIC.

3.41 The introduction of a local residency requirement for market housing would appear to be feasible, but not if operated in conjunction with an affordable housing policy on the same site.
4 Conclusions

4.1 The analysis of needs and affordability shows that the overall need for affordable housing opportunities in the park area is 121 units per year. Since this number is not far short of the expected total rate of new building and household growth (130 pa), it may be infeasible to provide this amount of new affordable housing. In this circumstance some recourse may be made to the Open Market Shared Equity Pilot (OMSEP) and similar schemes. OMSEP could meet anything between 40 and 60 units of the overall need. However, it is also important to consider the role which the private rented sector could play in meeting some of these ‘intermediate’ affordability needs. Private renting would appear to be affordable to many younger households who could not afford to buy, the same group towards whom LIFT is directed.

4.2 The intensity of affordability and need pressures tends to be greatest in Upper Deeside, Aviemore and Tomintoul, although the opportunities to respond to these needs in terms of new build are likely to be greatest in Aviemore. Nevertheless, positive needs for social rented and intermediate housing are present in all the areas and this is the case even under alternative assumptions.

4.3 The model suggests that, in the Park area, social rented provision should be focussed on one-bedroom homes; and NSSE should focus on one and two bedroom properties with some provision of three bedroom properties.

4.4 Sensitivity tests provide ready-reckoners for the impact of potential market changes. For example, 20 per cent lower prices would improve affordability by 12 per cent points and reduce need by 11 units per year. Such price differences have a larger effect on the balance between LIFT and Rental needs, with lower prices increasing the scope for New Supply Shared Equity and reducing Open Market Shared Equity Pilot and/or rental needs, and vice versa.

4.5 Analysis of development viability shows that a policy of seeking a 25 per cent affordable housing quota would appear the most realistic. At 25 per cent, affordable housing, delivery without grant would appear to be financially viable (although grant would need to be available if market circumstances change) but at 40 per cent and 50 per cent, grant would appear to be needed for most circumstances and financial viability must be questionable.

4.6 There would seem to be little justification for seeking differential proportions of affordable housing on larger and smaller sites.
4.7 Different types of affordable housing generate different revenues. This could be evened out by use of the grant system, but where grant is not available it should not be assumed that different types of intermediate housing have a comparable impact on financial viability.

4.8 One option for consideration would be to have a common payment to the developer for social rent, intermediate rent and NSSE properties based on the NIC payment for social rent and give grant to match any deficit between revenue and NIC.

4.9 The introduction of a local residency requirement for market housing would appear to be feasible, but not if operated in conjunction with an affordable housing policy on the same site.
Appendix 1  Modelling affordability and housing need

Introduction

This appendix outlines the key assumptions and approach to modelling affordability and housing need. It goes on to discuss certain demographic assumptions and numbers in some detail, noting the components of overall household growth and then focusing on migration.

Background to model

The model reported in Chapter 2 can be described as an ‘affordability based needs model’, and has been developed by Glen Bramley from the early 1990s. It has underpinned studies for the Scottish Government and Communities Scotland, most recently the 2006 update of the Local Housing Need and Affordability Model for Scotland (SLHNAM) and has been used to inform the Home Ownership Task Force and Barker Inquiry into Housing Supply exercises in England.

It is a systematic model based on secondary data and reasonable assumptions, which applies consistent calculations to consistent datasets. It integrates demographic components of household growth with market analysis and data on the existing supply. It calculates need and supply as annual flows (so many household/dwelling units per year) for each study area and aggregates to regions or nations as whole. Key numbers in the model are consistent with national totals contained in household projections and national surveys, including in the current version the Scottish Household Survey (SHS) and the Family Resources Survey.

The model deals only with the need for additional units of social or affordable housing and does not address all issues of house condition or suitability, particularly within the social rented sector; in this sense it is only a partial assessment of the totality of needs for housing investment.

Model logic

The basic needs model may be set out as follows:

\[ N = (H + 0.33 \times M) \times A + S \times O + Q \times W - R \]

where:

- \( N \) is net need for additional affordable housing (units per year).
- \( H \) is gross new household formation (households per year).
- \( M \) is net inward migration (households per year).
- \( A \) is the proportion of new/young households able to buy in the market.
- \( S \) is the national average proportion of owner occupiers moving to social housing each year.
- \( O \) is the number of owner occupier households.
- \( Q \) is annual quota, set at 0.10 in the baseline model.
**W** is the backlog stock of households with existing needs which may require a move into social housing.

**R** is the number of net relets of social housing, excluding new build and all transfers within the social sector.

This model is consistent with (if slightly simplified from) the recommended summary needs assessment methodology contained in the DETR (2000) Local Housing Needs Assessment Guidance (Table 2.1). Because the model is based on affordability, it is well-adapted to the supplementary task of estimating the potential need/demand for LCHO provision (or other forms of intermediate tenure between market purchase and social renting.

The software platform for the model is SPSS for Windows (Release 12) which runs on PC. New data inputs are generally prepared on Excel worksheets and then converted to SPSS format and matched to the main dataset.

A range of data are required to drive the model, and so far as possible these refer to 2006 or as near as possible to that date (e.g. 2001 in the case of Census data).

**Incomes**

Income levels and distributions are modelled, using parameters based on the Family Resources Survey (FRS) data for Scotland covering 2000-2002 (repriced to a 2006 basis). The key parameters of median gross income and the standard deviation of log of income are estimated for each of 9 household types broken down by number of workers (none, one, two+). These are obtained separately for all households and for households with a head aged under 35. The latter are used as a proxy for the key group of households which have formed relatively recently. Incomes in the model are estimated gross; a simple algorithm is used to convert between gross and net incomes. The 2006 Communities Scotland update report contains a discussion of comparisons between the model’s income estimates and a number of other sources of income information, at national and local levels.

**Household composition**

This is based on 2001 Census Key Statistics tables for Census Output Areas, aggregated to the zones used for the study. The Census gives the proportion of households in each of the 9 types. The household composition for under-35s is derived by taking the national ratio in SHS of the proportion within this age group to the overall proportion.

**Economic activity**

The proportion of each household type with no, one and two+ workers are estimated using national proportions derived from the FRS and, at local level, predictors of the relative prevalence of no-worker and two+ worker households. The predictor indices employ a number of variables (unemployment overall and by sex, economic activity by sex and for married
females and lone parents), and are calibrated using regression analysis on Census data at local authority level.

Relative income level

Income level in each zone, relative to the national (Scottish) median, is predicted using composite indices, one for working households and another for non-working households. These composite indices take account of occupation (high and low social class, weighted by SHS income data), industry mix of workers (weighted by relative income), relative average earnings (based on 2006 NES by place of residence), incidence of low earnings (NES), incidence of part-time workers (Census), and sub-composites for wealth (class, tenure weighted by relative house prices, and two+ cars) and for deprivation (unemployment, long term unemployment, lone parents and no car).

Income distribution

For each sub-group (household type by number of workers), incomes are assumed to be distributed according to a 'log-normal' distribution. The parameters of this distribution are derived from the FRS for Scotland, as noted above, but with the median level varying according to the values of the indices described in the previous section. The model can therefore calculate the proportion of each household type below any threshold derived from housing price information.

House price threshold

House price data are available from SASINES/LVIU data provided by Communities Scotland for years up to 2005. The lower quartile prices of all market value sales is used as the threshold of access to buy\(^5\). The lower quartile is assumed to represent the entry level for 2-bedroom accommodation on average. However, for particular zones, allowance is made for variations in the average size of owner occupier dwellings from Census data. Prices for one-bedroom and three bedrooms are assumed to be at fixed ratios to this level (0.776 and 1.153 respectively). Detailed price data for 2004-05 were used, with local authority-level updating to late 2005. Households are allocated to appropriate sizes of accommodation, with couple/2 adult households split between one and two bedroom.

The affordability threshold is based on a lending multiplier of house price to gross income, using 3.5 times annual income for a single earner or 0.85 times this ratio for two earners. The model applies a supplementary test, that a household should not be left with a net income of less than 120 per cent of the Income Support/Housing Benefit ‘Applicable Amount’ after meeting housing costs. This so-called ‘residual income’ or poverty test mainly affects low priced areas, and is not significant in the CNPA area.

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\(^5\) In practice, in this study for CNPA, price data were first grouped at postcode unit level, so the lower quartile strictly refers to unit postcodes rather than individual transactions
Gross new household formation

Gross new household formation is the number of households formed at the end of a year which did not exist separately at the beginning of the year. This is calculated from the relationship between age and the propensity to head a separate household. 2001 Census data are used to provide these propensities, which are applied to local age composition of population. The propensities used were an average of those based on local rates and those based on national rates.

Net migration

Net (inward) migration is effectively derived from projected increase in the number of dwellings/households. An allowance is made for need associated with migrants, making two simplifying assumptions: (a) in- and out-migrants have similar levels of affordability; (b) migrants are better off than non-migrants and less likely to need affordable housing.

Households by tenure

Numbers of households by tenure are available from the 2001 Census Key Statistics, adjusted to take account of more recent local information. The ‘constant’ used to estimate the proportion of owner occupiers needing to move from owner occupation into social renting each year (0.47 per cent) is based on Communities Scotland data on inter-tenure moves.

Local authority lettings (relets)

Relets are an important component of the calculation of net need or surplus. Net relet numbers measure the number of existing local authority and housing association housing units becoming available for letting each year, after deducting those released by transfers within the social rented stock. These data were compiled from the administrative records of the local social landlords, and an average of several recent years taken where possible.

The 2007 Model: household change

Table A.1 provides some supporting information on the demographic assumptions, looking particularly at the consistency of the household numbers. The previously assumed rates caused some concern, particularly for the remainder areas, so some time was spent checking and modifying the model and some of its inputs. The result is to make it more consistent, internally and with recent actual data. These changes are reflected in the new central estimates in the model. However, it should be noted that the key assumption of the net household growth rate for CNPA is unchanged from the previous study.
### Table A.1: Household change components (per thousand pa)

<table>
<thead>
<tr>
<th>Sub-Area</th>
<th>Net Hhd Growth</th>
<th>Gross Formation</th>
<th>Net Hhld Migration</th>
<th>Net Hhld Dissolns</th>
<th>Discrepancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aberdeenshire NP</td>
<td>13</td>
<td>21</td>
<td>12</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>Aviemore</td>
<td>31</td>
<td>21</td>
<td>26</td>
<td>14</td>
<td>-1</td>
</tr>
<tr>
<td>Grantown</td>
<td>11</td>
<td>21</td>
<td>10</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>Kingussie</td>
<td>13</td>
<td>22</td>
<td>11</td>
<td>18</td>
<td>-2</td>
</tr>
<tr>
<td>Tomintoul</td>
<td>0</td>
<td>18</td>
<td>0</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
<td><strong>25</strong></td>
<td><strong>11</strong></td>
<td><strong>20</strong></td>
<td><strong>-4</strong></td>
</tr>
<tr>
<td>Earlier study</td>
<td>14</td>
<td>22</td>
<td>12</td>
<td>18</td>
<td>-2</td>
</tr>
</tbody>
</table>

The first column of Table A.1 shows the household growth rate per thousand existing households. This is shown as zero for Tomintoul, a relatively high figure of 31 for Aviemore, and around 11-13 for the other areas. Net migration is the main factor accounting for growth, and for this difference in relation to Aviemore. There are relatively slight differences between the sub-areas in gross new household formation rates, although these are rather higher in the remainder of the constituent authorities. Household dissolutions are modelled as a function of age structure, and are lower in Aviemore due to its younger age profile. The final column shows remaining discrepancies between these components of household change. These are now modest in scale.

### Migration

One of the issues identified in the previous study and in our research proposal was the question of the composition of migration flows in and out of the study area. The affordability and needs model makes relatively simple assumptions about this, basically that inflows and outflows are similar in profile and generally higher income/more affordable than other local younger households.

We have been able to explore these assumptions further by processing some ward level Census migration data broken down by age and occupational group (NSSEC). This provides an approximate ‘best fit’ Cairngorm NPA and looks at the characteristics of migrants to or from this area, broken down by the origin/destination area (CNPA itself, the rest of the adjacent local authorities, and ‘the rest of the world’). Clearly, any analysis based on this source should acknowledge the limitation that this is based on one-year’s moves, six years ago, and omitting certain categories of migrant (particularly international out-movers).

Table A.2 looks at net flow numbers by broad age group. It is noteworthy that there appears to be a high net inflow for the CNPA of 622 persons in that year. This might be equivalent to around 250 households at an average size of 2.5; an alternative estimate assuming ‘mover groups’ have a one-third household equivalence gives 241 pa. These figures are still higher than the 126 net migration (household units) assumed in the baseline model. However, a rough estimate of international out-migration based on 2004/05 data would be about 100 household equivalents for Cairngorm. This would bring the overall net migration figure down to about 140 household equivalent per year,
which is quite close to the baseline, although not quite so close to the 110 net migration generated from the revised demographic scenario.

The analysis by age is interesting, as it seems to some extent to contradict, or modify, the caricature of Cairngorm has having a large inflow of older people and a large outflow of younger people. In fact, net outflow is only characteristic of the ‘student’ age group; all other groups have significant inflows. There is a substantial net inflow of young adults (20-44) as well as mature adults (45+), and they bring with them significant numbers of children too. In net terms, the main exchanges are with the ‘rest of the world’ as opposed to the remainders of the constituent local authorities.

Table A.2: Net migration balance by age group and origin/destination area, 2000-01.

<table>
<thead>
<tr>
<th>Area from/to</th>
<th>All Migrants</th>
<th>Children</th>
<th>Student Age</th>
<th>Young Adult</th>
<th>Mature Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairngorm</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Non Cairngorm</td>
<td>622</td>
<td>147</td>
<td>-73</td>
<td>257</td>
<td>291</td>
</tr>
<tr>
<td>Aberdeenshire</td>
<td>63</td>
<td>19</td>
<td>0</td>
<td>33</td>
<td>11</td>
</tr>
<tr>
<td>Angus</td>
<td>-29</td>
<td>-12</td>
<td>3</td>
<td>-30</td>
<td>10</td>
</tr>
<tr>
<td>Highlands</td>
<td>9</td>
<td>18</td>
<td>4</td>
<td>2</td>
<td>-15</td>
</tr>
<tr>
<td>Moray</td>
<td>39</td>
<td>10</td>
<td>2</td>
<td>32</td>
<td>-5</td>
</tr>
<tr>
<td>Rest Of World</td>
<td>540</td>
<td>112</td>
<td>-82</td>
<td>220</td>
<td>290</td>
</tr>
<tr>
<td>All Moves</td>
<td>622</td>
<td>147</td>
<td>-73</td>
<td>257</td>
<td>291</td>
</tr>
</tbody>
</table>

Note: Age cut-offs are 15/16, 19/20, 44/45; out-migration excludes international moves but in-migration includes these.

The analysis by income (based on NS-SEC classification in Census and FRS income data) is shown in Table A.3. It shows the expected pattern that most migrant groups have somewhat higher incomes than all residents (and all residents under 35). It also shows, as expected, that in-migrants have higher incomes than out-migrants, overall and for nearly all of the flows. The exception is the flow to the rest of the Highlands; here in-migrants to Cairngorm have lower incomes than those leaving Cairngorm. This may make more sense as ‘rest of Highland’ could be seen as a more remote/peripheral area than Cairngorm, whereas the relationship is the other way around with the other districts. The most affluent in-migrants are from Aberdeenshire; it might be surmised that they are typically moving into Upper Deeside. Overall, in-movers to Cairngorm have incomes which are on average 16 per cent above the incomes of local under-35 year olds. This indicates that there is clearly some scope for incomers to outbid locals, although the difference is not as great as might be expected. However, older incomers in particular, are likely to have housing and other wealth, as well as income, to contribute.

It is also interesting to note that out-movers also have somewhat higher incomes than average, although to a lesser extent. This is not really surprising, as it is generally well established that higher income and socio-
economic groups display more residential mobility, particularly over longer distances.

It is possible to modify the model’s treatment of migration, to distinguish the profiles of in and out migrants. The baseline (and previous) model makes a simplistic assumption about the relatively higher income of migrants, and their lower probability of seeking or being eligible for affordable housing. It effectively applies the same adjustment to both in and out flows, by working from net migration. The SLHNAM (2005) model applies a more sophisticated approach, by working from the estimated average incomes of in- and out-migrant flows to a derived affordability rate. We can approximately replicate this analysis within a variant of the Cairngorm model (applying common values for CNPA areas).

Table A.3: Income estimates for migrants by area of origin/destination and for residents, 2001/2006.

<table>
<thead>
<tr>
<th>Area From / To</th>
<th>In-Mover Incomes</th>
<th>Out-mover Incomes</th>
<th>In/Out Mig Income Difference</th>
<th>In/Out Mig Income Ratio</th>
<th>In-Mover Ratio to Resid &lt;35</th>
<th>Out-Mover Ratio to Resid &lt;35</th>
</tr>
</thead>
<tbody>
<tr>
<td>within Cairngorm</td>
<td>550</td>
<td>550</td>
<td>0</td>
<td>100%</td>
<td>106%</td>
<td>106%</td>
</tr>
<tr>
<td>All Non Cairngorm</td>
<td>603</td>
<td>557</td>
<td>45</td>
<td>108%</td>
<td>116%</td>
<td>108%</td>
</tr>
<tr>
<td>Aberdeenshire</td>
<td>652</td>
<td>582</td>
<td>70</td>
<td>112%</td>
<td>126%</td>
<td>112%</td>
</tr>
<tr>
<td>Angus</td>
<td>543</td>
<td>543</td>
<td>1</td>
<td>100%</td>
<td>105%</td>
<td>105%</td>
</tr>
<tr>
<td>Highlands</td>
<td>519</td>
<td>594</td>
<td>-75</td>
<td>87%</td>
<td>100%</td>
<td>115%</td>
</tr>
<tr>
<td>Moray</td>
<td>603</td>
<td>590</td>
<td>14</td>
<td>102%</td>
<td>117%</td>
<td>114%</td>
</tr>
<tr>
<td>Rest Of World</td>
<td>609</td>
<td>543</td>
<td>66</td>
<td>112%</td>
<td>118%</td>
<td>105%</td>
</tr>
<tr>
<td>All Moves</td>
<td>584</td>
<td>554</td>
<td>29</td>
<td>105%</td>
<td>113%</td>
<td>107%</td>
</tr>
<tr>
<td>Est Income All Residents</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Est Income Residents &lt;35</td>
<td>518</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Incomes estimated from NS-SEC classification of wholly moving households and moving groups in 2001 Census, using Family Resources Survey data for Scotland (2001-03) on income of principal benefit unit in household, repriced to 2006. Estimated incomes for residents are from model (also calibrated on FRS).

The results are reported as one of our sensitivity tests, as shown in Table A.4 below. Reflecting the above data, the effect is to slightly increase the migrant need estimate, but only by 4 units pa. In-migrants are better off, so slightly fewer of them need affordable housing; out-migrants are slightly poorer, so more of them would have needed affordable housing if they had stayed. However, since in-migrants greatly outnumber out-migrants, and since in and out migrant need numbers are given a weight of 0.5 in this version rather than 0.33 in the baseline, the net effect is a slight increase.
Table A.4: Components of Need under Alternative Migrant Affordability Estimates

<table>
<thead>
<tr>
<th>Sub-area</th>
<th>Local Unaff</th>
<th>New Migrant Need</th>
<th>Ex Owners Need</th>
<th>Backlog Allowance</th>
<th>Net Relets</th>
<th>Net Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Deeside</td>
<td>26</td>
<td>6</td>
<td>2</td>
<td>6</td>
<td>7</td>
<td>30</td>
</tr>
<tr>
<td>Aviemore</td>
<td>32</td>
<td>16</td>
<td>4</td>
<td>24</td>
<td>22</td>
<td>49</td>
</tr>
<tr>
<td>Grantown</td>
<td>24</td>
<td>4</td>
<td>4</td>
<td>14</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>Kingussie</td>
<td>19</td>
<td>4</td>
<td>3</td>
<td>9</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>Tomintoul</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td><strong>CNPA Total</strong></td>
<td><strong>107</strong></td>
<td><strong>30</strong></td>
<td><strong>14</strong></td>
<td><strong>62</strong></td>
<td><strong>70</strong></td>
<td><strong>125</strong></td>
</tr>
</tbody>
</table>

Note: net need allows for contribution of private rented sector.
Appendix 2  Estimating viability and policy feasibility

The financial viability model was developed for the Greater London Authority and has been widely used in England and Wales. The version used for this project has been adapted to include reference to NSSE (rather than the English and Welsh equivalents) and to incorporate the Scottish public funding regime for social rented and low cost home ownership housing.

The model provides the user with an assessment of the economics of residential development for specific schemes. It allows the user to test the economic implications of different types and amounts of planning obligation and, in particular, the amount and mix of affordable housing. The user can alter a range of different assumptions including house prices, use of public subsidy, density and build costs and compare the results these generate.

The model can be an aid to decision making but it cannot make decisions. It does not say if such and such a residual value is achieved then development can or cannot go ahead. However, it gives the user information about the economics of development, which can be taken into account, along with a range of other factors about the site, in making decisions about proposed schemes, be they at pre-application negotiation stage, an outline planning application or a full/detailed application.

The model compares the potential revenue from a site with the potential costs of development before a payment for land is made. In estimating the potential revenue, the income from selling dwellings in the market and the income from producing specific forms of affordable housing are considered. The estimates involve (1) assumptions about how the development process and the subsidy system operate and (2) assumptions about the values for specific inputs such as house prices and building costs. If the user has reason to believe that the reality in specific cases differs from the assumptions used, the user may either take account of this in interpreting the results or may use different assumptions.

The model should not be used in a mechanistic fashion to give results that are taken as inevitably correct. The results depend on the inputs. The results provide information to help make decisions. The results do not provide the decisions.

For some inputs, such as house prices and building costs, the model has ‘default’ values. In this case house prices are as used in the affordability model. Build costs are based on data from the RICS Build Cost Information Service for Highland and Grampian.

The values that are pertinent to a given scheme may be different from these default values. If the user has scheme specific values these should be used.
instead of the default values. They should always be used for assessing individual schemes.

The main output of the model is the residual value. This is the sum of money that is available to be shared between the developer and the landowner. It is a surplus that remains after all development costs, except land costs, have been met from revenue. Development costs include a standard return for the developer and contractor. The residual value will have to cover the costs of land acquisition. Any surplus remaining after land acquisition becomes ‘supranormal’ profit. The residual value is thus not the same as the land costs, although land costs will normally have to be met from the residual. So, for development to be economically viable the residual must be large enough to at least cover the cost of acquiring the site.

Use can be made of the model to test the sensitivity of the residual value to different input values. Thus the user can see, for instance, how different amounts of affordable housing, higher or lower house prices or higher or lower build costs influence the residual value. The residual value is estimated at a given point in time. If in the future input values change before a development has been completed, the value of the actual residual may be higher or lower than the residual value estimated by the model. For example, if house prices rise and all other items remain the same the value of the residual will rise. The model does not predict. However, if one makes assumptions about future input values, the model can estimate the effect of these assumptions on the residual value.

The user will need to make a judgement about the residual. It needs to be large enough to cover the cost of land acquisition. This cost is neither an input to nor an output from the model. This cost is site specific. The model estimates the impact on the residual of the provision of affordable housing. Whether or not that impact is such that the viability of the development is impeded, is a judgement that has to be made by the user in the light of additional information including the cost of site acquisition, the value of any existing use and the opportunity for the site being used for another use that potentially attracts a higher residual. Decisions on whether residential use is likely to come forward (as against commercial uses) can be made either by reference to local land market knowledge (for a general overview) or the Valuation Office’s annual Property Market Report.

The tenures used in the model are defined as follows:

- Sale housing.
- Social rent
- LIFT
- Equity share.
- Low cost sale:
- Intermediate Rent:

Revenue from the sale options (sale, equity share and low cost sale) is based on income to the developer from the share of the property sold (for example, if
a £100,000 property is sold on an equity share basis at 70 per cent of equity the receipt to the developer is £70,000).

For Intermediate Rent the receipt is based on capitalised net rent

In the case of NSSE and social rent it is possible to calculate revenue both with and without grant; in the former case revenue is based on the appropriate NIC formula, in the latter on capitalised rental income for social rent and revenue from sale for NSSE.
Appendix 3 Special policies operated by the National Parks

Introduction

Research earlier this year by Communities Scotland identified seven national park authorities which had policies in place either to restrict the sale of new market housing to households with a ‘local’ connection and/or to limit the size of new market housing.

The national parks with such policies are:

- Dartmoor
- Exmoor
- Lake District
- Loch Lomond and Trossachs (LLTNP)
- North York Moors
- Peak District
- Yorkshire Dales

For this study, the seven authorities were contacted again to explore further the rationale behind their policies, how they have been applied and perceived impacts on the provision of housing in their areas.

The relevant planning officer from each authority was interviewed by telephone using a topic guide to shape the discussions. Interviews lasted between 30 and 50 minutes.

Overview

There are a number of important contextual comments about the planning approach adopted by the seven national parks and the market context in which they operate.

First – the park authorities are very conscious that ‘local people’ are getting squeezed out of their local housing market. The demand for second homes, pressure from in-migration and, in those parks near to major urban areas, demand from out-commuters are said to be continuing to push up house prices. Typical prices quoted by interviewees for ‘a small terrace property’ were between £160,000 and £180,000. Comment was also made that average wages in the national parks were relatively low and, combined with the house prices, magnified affordability problems for many local households.

Second – the overall planning approach in the English national parks is to emphasise ‘….restraint and protection…’ The park authorities have to balance this with their concern to address affordability issues and the strong wish to provide housing which meets local needs. The preservationist directive in Parks south of the border makes them somewhat different to the Cairngorms,
where the CNPA\(^6\), following Scotland’s legislation has twin social justice and environmental conservation objectives.

**Third** – the amount of new housing being developed in the national parks is very small; as little as 20 dwellings per annum in one park, more likely between 40 and 60 dwellings and highly unlikely to be more than 80 dwellings. With such small building programmes, the degree of influence which a planning authority can have on the local market in the short term is limited, although over time, there may be more significant shifts in the housing market influenced by the application of planning policy. The scale of the building programme in the CNPA area again distinguishes the Park from LLTNP and those south of the border.

**Fourth** – the national park authorities are the planning authorities for the park area but are not the housing authority. This is the responsibility of the district councils which cover the park. Rarely will this just be one housing authority and the national park planners often have to operate their planning policies in conjunction with more than one housing authority.

**Fifth** – the policy framework in which national parks are operating is not settled. The English parks, which already have their own local plans, are at different stages in producing local development documents – some have yet to start the process whilst others are close to producing their submission Core Strategies. Changes in regional policy, as new Regional Spatial Strategies (RSS – England’s successors to structure plans) are produced, are having an impact on the park authorities and will need to be taken into account as the local development documents are progressed.

In Scotland, the situation is different: the parks are producing their first local plans. These will replace the ‘patchwork’ of district council local plans which cover their area and which currently provide the planning policy guidance they operate within.

As things stand, the ‘age’ of the policies (in England and Scotland) which the park authorities are operating varies. Some have policies adopted as recently as 2006 whilst others date back to 2001.

**The operation of local connections policies**

Affordable housing (i.e. social rented housing and ‘shared equity’\(^7\) housing provided by a housing association) is being provided on the basis that it will be available to local people in some form of housing need. In this respect national parks are no different from other rural areas. Whilst the details of local connections policies vary between parks, as a general rule, those who have lived in the area for a number of years get first call on the affordable housing but others, for example those with a strong local connection or with a

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\(^6\) And the LLTNP authority

\(^7\) Shared equity is used as a generic term to include products such as conventional shared ownership and New Supply Shared Equity. It does not include the situation where a developer sells directly to a purchaser at a % below open market value.
need to live locally for social or job-related reasons, will also have access to
the affordable housing.

Where some of the parks have taken a different approach is in extending the
use of local connections policies to market housing. The definition of ‘local
connections’ again varies in detail between the park authorities but are very
similar in principle to those used with affordable housing, as the two examples
below illustrate.

Examples of Local Connections Policy for Market Housing

Example one
(i) a person (and his or her dependants) who has a minimum period of 10
consecutive years permanent residence in the Parish or an adjoining
Parish
(ii) a person (and his or her dependants) not now resident in the Parish but
with a strong local connection with the Parish, including a period of
residence of 10 years or more within the last 20 years;
(iii) a person who has an essential functional need to live close to his or her
work in the Parish or an Adjoining Parish.

Peak District National Park Authority – sample S106 agreement

Example two
For the purposes of policy HS1 the definition of ‘local people’ will be as
follows:
(i) those people currently living in a parish wholly or partly within the
National Park or a rural parish adjacent to the parish of provision and
having done so for a period of at least 5 years; or
(ii) those people who have lived in a parish wholly or partly within the
National Park or a rural parish adjacent to the parish of provision for a
period of five years but have moved away in the past three years; or
(iii) those people who have a strong local connection with a parish wholly or
partly within the National Park or a rural parish adjacent to the parish of
provision by virtue of, for example, upbringing or employment. (Dartmoor
National Park Local Plan, First Review 1995-2011 Adopted Version
October 2004).

The examples above highlight that local connections policies, although
following broadly the same approach, can differ in the length of residency
required to ‘meet the local connection test’. Other examples of 18 months and
3 years were quoted. Where these much shorter local connections criteria are
used, a wider pool of people may be able to qualify and long-standing local
residents could be at a relative disadvantage.

The framing of local connections policy for market housing is handled in
different ways by the national parks; there is no single approach which can be
described as typical. There are variations in policy which relate to the size of
the scheme, whether it is new build or a conversion and the type (size) of settlement. Three (simplified) examples from current plan policies illustrate this:

A Generally a strong presumption that new housing will be provided by housing associations as affordable housing. Some market housing allowed but only where it is needed to support the provision of affordable housing (on a one for one basis). If a housing association is not involved in the provision of affordable housing, market housing may be allowed but with a ‘local connection’ policy and restrictions on the size of dwellings and selling price (issues which are looked at in more detail later).

B In the larger settlements there is no affordable housing requirement and sale housing can be for the open market. In other settlements where there is new development, any sale housing will have a local occupancy condition.

C Conversions can be as open market housing but all other sale housing is with a local connection policy.

Where an authority is operating a local connections policy, planning applications for market housing have to demonstrate that there is a local need for such housing.

Where plans are currently being reviewed, the trend is towards tighter policies with a greater emphasis on local connections. Sometimes this reflects entirely local concerns but in others, an emerging RSS may have already established the new policy direction (although the local park authority may have gone this way in any case).

The use of local connections policies is not seen universally as a solution to affordability problems. Objections to its use are two-fold. First, that the provision of open market housing is needed to meet wider housing demands of the national park and second, that local connections policies are difficult to enforce and maintain in perpetuity. The second reason is by far the more extensive concern.

Those that have local connection policies for market housing commented on the necessity of ensuring that on resale, the local connections policy would still apply. This requires a robust S106 agreement (the English equivalent of s75) and some form of ‘policing’ of future sales.

The Lake District National Park is different from the other parks in that its policies effectively preclude the development of market housing, with or without a local connection. New housing is provided as social rent or intermediate housing provided by a housing association.
Lake District National Park Authority Housing Policies

H20 Housing in the Lake District National Park

Within the Lake District National Park housing development will only be permitted where the development is of a scale and type which is designed to contribute to the identified housing needs of the locality and;

1. it is secured by condition, or legal agreement for occupation only by local persons, or

2. it comprises a scheme to provide social housing whereby occupancy is secured, in perpetuity, to local persons in housing need, being a scheme usually promoted by a registered social landlord.

Cumbria and Lake District Joint Structure Plan, Adopted 7 March 2006

Restrictions on size of new market housing

Policies which restrict the size of new market housing are being used by four of the parks. The intention of such policies is to deliver market housing which is more likely to be meet needs at the lower end of the housing market. The size limit might be expressed as a single figure, for example 90 sq m in the Yorkshire Dales or with different size limits depending on the number of persons the property is intended to provide for as in the Peak District (with a maximum of 87 sq m). One of the parks without a size limit argued that other development control policies would limit the size of new housing through a presumption against large ‘suburban style’ developments.

A size limit for the initial construction needs to be accompanied by other controls which restrict the occupiers’ ability to increase the size of the property (for example, through the withdrawal of permitted development rights) and which guard against improvements to the property which are likely to enhance its market value (even if dwelling size remains the same) for example, installing a ‘state of the art’ kitchen. One of the interviewees explained that, on resale, the District Valuer became involved to ensure that the sale price of the property did not take account of any enhancements thought unreasonable. The same authority explained that they would not accept applications for properties which, although they came within the size criteria, were of too high a specification. The yardstick here is that the specification does not exceed that of a housing association property.

The purpose of these controls is to thwart any attempt by occupiers of local connections market housing, to argue on resale that their property is no longer affordable and therefore the local connections tie should be lost. These arguments have been tested at planning inquiries and, we were told, that appeals on this basis had failed.
Impact on market value and development pace

The primary intention behind local connections policies and/or size criteria is not to reduce market values of the properties involved:

“…it is not intended to be a mechanism to reduce price…more about giving local people better options…”

National parks operating local connections and/or size/specification controls see this as part of a strategy to build up a stock of market housing for the local community (as a complement to the affordable housing which is provided by housing associations):

“Over the long term we will gradually build up a supply of ‘sale’ housing for local people.”

For those park authorities with relatively new policies restricting market housing (either through a local connection and/or size/quality policies) there is insufficient evidence on the impact of the policies on price. However, parks which have operated these sorts of policies for longer, believe that market values are depressed. Discounts against open market value of 10-15 per cent, 25-30 per cent, 30 per cent and 15 per cent were quoted.

There is no systematic information from across the parks on the types of people who occupy restricted market housing. One park authority was not even convinced that those occupying restricted market housing were actually the people for whom the housing was intended. They explained that, even with the ‘discount’ on market housing achieved by having restricted occupancy, local households would struggle to afford to purchase them. Those who had expressed an interest for such housing were mainly ‘in-comers’ who believed they could demonstrate sufficient local connections to qualify for the housing. But this would not be an argument for changing policy since, as noted above, the policy has to be seen as a long term approach which would extend the housing options for the local community well into the future.

One park authority (Dartmoor) has adopted a more stringent approach to the provision of market housing. They specify that market housing should be provided at costs 25 per cent below the ‘restricted market value’ – which could mean, in practice, a sale price of around, say, 40 per cent below its open market value:

“Where no RSL is involved, a condition will be attached or a planning obligation sought to ensure that the level of rent is fixed at least 25 per cent below the agreed restricted market rent or, where a dwelling is offered for sale, both the initial and subsequent sale price is at least 25 per cent below the agreed restricted market value.” Dartmoor National Park Local Plan First Review 1995-2011 Adopted Version (October 2004).
Practical implementation issues

The interviewees highlighted the importance of ‘policing’ the implementation of a local connection and/or restricted size policy. The wording of the S106 agreement is critical to the process. The Peak District National Park provides a ‘standard’ S106 agreement for such market dwellings on its website. The sorts of things included are; who qualifies under the policy, how the initial value should be fixed, how value is to be treated at resale and so on. An extract from the standard S106 is shown below:

Extract from Standard S106 Agreement form the Peak District National Park Authority

Immediately following the completion of the Development when the Dwelling is fit for occupation the Owner shall write to the Authority requesting that the Authority instruct the District Valuer to prepare a Valuation Report to provide (a) a Freehold Valuation and (b) an Approved Selling Price in the case of a freehold and (c) an Open Market Rental valuation in respect of any letting. The District Valuer will prepare his valuations as an expert not as an arbitrator.

The Owner will be responsible for payment of all fees and expenses of the District Valuer.

In the event of the Owner not requesting that the Authority to instruct the District Valuer in accordance with the above provisions, the Authority shall be at liberty to instruct the District Valuer and the costs of this Valuation Report will repaid to the Authority by the Owner.

In determining the (a) Freehold Valuation (b) Approved Selling Price or (c) Open Market Rental the District Valuer shall disregard any Over Investment.

Some interviewees were concerned that, however tightly worded the S106 agreement, the system could still be open to abuse and would be difficult to police. However, those who have operated such policies for a long time suggested that the system was self controlling in that, on resale, the restrictions imposed by the agreement could not be overlooked in the conveyance of the property. Of course, there is nothing which can control what happens to a purchaser once they have bought the house (e.g. someone with a local job who moves to a job outside the park) but, the dwellings do remain as a ‘local resource’ and at a market value below an open market sale.

Whilst interviewees saw the involvement of a housing association as a more secure way of securing affordable housing in the long term, with experience, the national park authorities operating a local connections approach, had devised S106 agreements which are watertight and provide for the long term build up of a form of low cost ownership which provides more housing choice for the local community.
The other impact of local connections policies is said to have been a slow down in the pace of development. It is difficult to judge the degree of impact; as such policies have often been introduced at the same time as overall housing numbers have been reduced. Where housing numbers overall are very small, we may be talking of one or two applications each year where a local connections policy might be relevant – although in other places with a larger programme, this number would be higher. This goes back to the point made earlier – that the introduction of a local connections policy has to be seen as a long term intervention in the market intended to provide a slow build up of the stock of housing ring-fenced for the local community.

Any slow-down in development pace may also be connected to the introduction of other policies which provide for a much higher percentage of affordable housing in mixed tenure schemes (where these are permitted). Whilst some older plans either do not prescribe the amount of affordable housing required on qualifying sites and others have relatively low percentages (say 20 per cent), newer policies and those coming under review are moving towards 50 per cent affordable housing as the norm. Even on these sites, the 50 per cent affordable housing (social rent and/or Homebuy\(^8\)) would be in schemes where the market housing has a local occupancy condition. None of the interviewees had specific financial information to assess the impact of such policies. Indeed a couple of interviewees said that this was primarily a concern for the housing authorities and not for themselves.

Concerns which were voiced about scheme viability were more likely to be about the amount of grant available for affordable housing (especially for social rented housing). The Housing Corporation is said not to treat national parks as ‘special cases’ in terms of grant. In addition to the reduced cross subsidy for affordable housing available from local connections market housing (with its lower value), interviewees pointed to the potentially higher build costs associated with development in the national parks (with the requirement for sensitive design and use of local materials).

But all these issues need to be set in the context of overall attitudes to delivery of housing in the national parks which, in turn, are shaped by the objectives of the English national parks. As one interviewee put it:

“..policies are designed to slow down pace…(they) have taken the heat out of development but not delivery of affordable housing which is going up…this is a win-win situation…”

**Rural exception sites**

As one interviewee put it:

“Affordable housing is effectively being delivered through rural exception sites.”

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\(^8\) England’s version of LIFT.
Although notoriously slow to bring to fruition, rural exception sites are steadily producing new affordable housing across the parks.

The main blockage to bringing forward rural exception sites is said to be that landowners would prefer to hold onto their land either because they do not want to see development in their area or because they do not find the price which housing associations will pay for rural exception sites sufficiently attractive to release their land. For example, one interviewee said that the amount which could be paid was around £6,000 per plot.

But other interviewees painted a different picture and said that there are philanthropic landowners who put forward land for the development of affordable housing, knowing they will get little cash for this but are willing to do so in the interests of the local community.

**Use of payment in lieu of on-site provision**

The general picture is that payment in lieu instead of on-site provision is rarely an acceptable alternative. Finding suitable sites for new housing is a significant problem for the national parks and they are reluctant to forego the chance of affordable housing, wherever it arises:

“What is the point of commuted sums for us?”

This does not mean that payments in lieu are never taken but they will only be considered in very special circumstances, for example the conversion of employment premises to accommodation for the elderly.

**The private rented market**

Information about the scale and role of the private rented market is limited. Some interviewees felt the private rented market played a very limited role in the local market but others felt it was of some importance.

Either way, private rented housing was said to be too expensive to meet the needs of local households who could not afford to purchase in the open market.

There are the first signs that demand for housing is starting to be fuelled by in-migration from the European Union Accession Countries. This is typically associated with the tourist industry and one interviewee quoted the example of a hotel owner who had bought a house to provide accommodation for his employees. But as a large-scale movement, having a major impact on demand for affordable housing, this is not yet a widespread issue.

**Concluding comments.**

Whilst the emphasis is on delivering affordable housing in the national parks, where market housing is allowed, it is becoming increasingly popular to link this to the use of local connections policies.
Although such policies can be used for all market housing, it may be better seen as a device which should be used selectively in areas where there is little new housing coming through the system and all new housing is a scarce resource which needs to be safeguarded for the local community, leaving incomers to compete in the second-hand market.

Whilst this approach makes sense in areas of very limited housing provision, it may be less appropriate in areas where housing numbers are higher and there is a need both to protect the local environment and to achieve economic and social regeneration.

Either way, a local connections policy for sale housing does not guarantee a supply of affordable housing in the sense which Low Cost Home Ownership schemes (for example Homebuy in the English context) are designed to do. Market housing restricted by a local connection, is likely to be cheaper than equivalent open market housing but the reduction in price is unlikely to make it affordable for those for which ‘true’ affordable housing is meant to cater.

Local connections policies are usually delivered in association with some form of dwelling size limit. This seems a sensible approach which keeps the general value of new sale housing toward the bottom end of the market. From the experience of the English national parks, it would seem that the two policies are most effective when they are linked together.

For effective implementation, robust S106 agreements are required which deal with a number of eventualities and which ensure that the housing provided is kept at below open market values, is kept at the bottom end of the sale market and, in the long term, builds up a lower priced sale market ‘ring fenced’ for the local community.

But these policy options do have an impact on scheme viability and can slow down development – either because of immediate viability concerns or because landowners believe that the policies will be short lived and are prepared to wait and see if they can, later on, achieve the much higher values associated with open market housing.

Where local connections and restricted size policies for market housing are linked to a high percentage of affordable housing in mixed tenure schemes, it will be very important that the impact on development economics (and the associated level of grant available for the affordable housing) are carefully considered, so that development is not turned off.
Appendix 4  Are small sites likely to stack up?

(Extract from report to South Buckinghamshire County Council\textsuperscript{9})

4.2.1  Are small sites less likely to ‘stack up’?

There are two main variables which need to be taken into account – costs and values. Research carried out by Three Dragons, Nottingham Trent University and Tym and Partners (Greater London Authority, 2003) found no concrete evidence to suggest that smaller development projects were systematically so much more expensive to develop that site size should have a defining role in setting thresholds.

We commissioned a report from the Royal Institution of Chartered Surveyors’ Building Cost Information Service which, whilst it found marginal economies of scale on build costs with larger sites, nevertheless, based on the very wide range of data for residential schemes, was inconclusive on the question of whether small schemes were more or less expensive to develop. The report found:

“this variance [in the build cost data] would appear to confirm qualitative views expressed by house builders and RSLs that whilst scheme size is undoubtedly a factor contributing to cost other factors such as location, design and site conditions are also significant factors. Put another way, the data demonstrates that although it is possible to calculate an average cost for schemes of a particular size, each scheme is unique and cost will vary to reflect a range of factors of which size is only one.”

The data that was produced on development costs for the GLA report shows a very ‘straight line’ relationship between number of units and cost per unit. There are certainly no ‘step changes’ as would seem to be implied by a threshold of 15, or indeed, at any other particular number of dwellings.

A general conclusion from the report was that a scheme of 6 units (the lowest the data provide evidence for) was 2 per cent more expensive than for one of 15 units.

On scheme value, the report found little evidence to suggest that site values fall with smaller sites. The report found that ‘scheme size is not a critical or consistent factor determining market value. This is more likely to be influenced by location and access to facilities.’

Indeed, further evidence suggests that small sites actually achieve higher land values than larger ones – completely opposing the assertion that small sites

\textsuperscript{9} Three Dragons forthcoming. See also Three Dragons, Nottingham Trent University and Roger Tym and Partners (2003) \textit{Thresholds for Application of Affordable Housing Requirements}, Greater London Authority (can be accessed from the GLA website).
are less viable than large ones in nearly all the locations shown from across the South East, small sites have the highest value.

This could be for a variety of reasons including the possibility that a different type of housing product may usually be built on smaller sites and/or that the value of larger sites have already been ‘depressed’ by the requirement to deliver affordable housing. It may also reflect an uplift in house prices on small sites which reflects the ‘more exclusive’ housing environment created.

However, on the basis of the data, there is no evidence to suggest that sites for smaller schemes do not provide robust land values.