

STIRLING COUNCIL
DRAFT PROPOSED LOCAL DEVELOPMENT PLAN MONITORING
STATEMENT 2011

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Please note that this document is published alongside the Stirling Council Draft Proposed Local Development Plan, October 2011 (LDP), but its purpose is to analyse and set out how well Stirling's current Development Plan has performed, and provides an evidence base for the preparation of the LDP.

1. INTRODUCTION

The current statutory Development Plan for Stirling Council consists of a number of documents, which are described below. It is the Development Plan in its entirety, which is used by the Council and other agencies in guiding decisions on future development.

- The Clackmannanshire and Stirling Structure Plan was approved in June 2002, with Alterations 1 and 2 incorporated in 2004. It sets out the long-term vision for sustainable development of the area to 2017. Its strategic framework seeks to deliver enhanced access to housing, jobs and local facilities, integration of land use with transport, and a high quality of development; all within the overall context of caring for the environment. The plan reflected the objectives and priorities of both Councils.
- The Stirling Council Local Plan 1999 was adopted on 24 December 1999 with First Alteration in August 2007 and Second Alteration in October 2006.
- Alteration 1A contains many of the policy amendments with which this monitoring statement is concerned.
- Alteration 1B reflects the fact that part of Stirling Council has been incorporated into the Loch Lomond and The Trossachs National Park, which is a separate planning authority and is currently preparing its own development plan.
- Alteration 2 addresses Structure Plan proposal HP3 by identifying the location and detailed policy framework for a Major Growth Area including 2500 houses. Policy E16 of the 1999 Local Plan is also altered to include designation of a new area of Green Belt.

The Development Plan covers all of the Stirling Council Area, and in most instances this is the geographical area for which statistics are available. However the Local Development Plan covers only that part of the Stirling Council Area outwith the Loch Lomond and the Trossachs National Park and is referred to as the LDP Area. Where possible, statistics are given for this area alone.

This statement covers monitoring that has taken place over the period of the Plan. However some of the data available is patchy, so the best spread of data for each subject area is used. Some statistics go back as far as 1998 and others are available up to 2011.

For the purposes of clarification, in the remainder of this monitoring statement “the Plan” will refer to the current Development Plan, incorporating all of the above documents, and the “Stirling Area” will refer to the Stirling Council area in its entirety, not Stirling City.

The monitoring report seeks to address the following questions:

- Are the objectives and related targets set out in the Development Plan being met?; or

- How much progress is being made towards meeting them?; or
If they are not being met or not on track to being achieved, the reasons why.
- Are policies achieving their objectives?
- What kind of impact are the policies having in respect of national objectives and any other objectives identified in the Development Plan?

1.1 The Approach

1.1.1 In order to establish how well the Plan has performed, this Monitoring Statement tries to relate what the Plan intended to achieve with what the Plan has actually achieved. This task is complicated by the difficulties in quantifying both the objectives and the outcomes. Data and statistics suitable for monitoring purposes are also restricted by lack of staff time and resources. It was therefore thought appropriate to concentrate on gathering and analysing information that is readily available and measurable. A number of questions can be asked about whether various objectives have been achieved and to what extent the Plan's policies and proposals have been successful, and it is hoped the evidence base will clarify to some extent not only what has happened, but why.

1.1.2 The remainder of the monitoring statement comprises 6 separate sections:

- Chapter 2 sets out the vision and objectives of the Plan. It is concerned with “what the plan set out to achieve”.
- Chapter 3 describes the physical, demographic and economic context that the Plan has been operating within, along with some of the main changes that have taken place since the preparation of the existing Plan.
- Chapter 4 deals with the performance of the Plan, which can be measured in terms of progress on the ground and success in policy terms. The outcomes of the land use strategy are examined from the spatial perspective of what development has taken place and in what locations. It concentrates on development progress with regard to the housing and employment sites allocated in the Plan, given their importance to the success of the Plan's strategy and the availability of relevant data. Evidence from other policy areas of the Plan is also examined. These topics were selected for baseline monitoring to determine progress towards delivering the strategy. These topics can be grouped according to the Plan's three strategic land use objectives: namely caring for the environment; jobs and homes; and community infrastructure.
- Chapter 5, entitled ‘Delivering the Strategy’, asks the question “what has the Plan achieved?” It draws together all the evidence set out in the previous two sections. It is concerned with establishing how well and to what extent the existing Development Plan has delivered its strategy. It sets out what the locational strategy has achieved and also whether the objectives for the main headings set out in the Structure Plan (Environment, Jobs, Homes and Community Infrastructure) have been met.
- Chapter 6 summarises the main conclusions.

- Appendix 1 includes a number of data tables, which are supplementary to those found in the main narrative. A list of supporting documents used in preparing the monitoring statement is also included at Appendix 2.

2. THE VISION AND OBJECTIVES

2.1 What did the Plan set out to achieve?

2.1.1 The long-term vision for the Stirling Area is set out in the Structure Plan, and this centres on sustainable development. Its strategic framework seeks to deliver enhanced access to housing, jobs and local facilities, integration of land use with transport, and a high quality of development; all within the overall context of caring for the environment.

2.1.2 The land use strategy, which applies to the Structure Plan and is carried through to the Local Plan, has a four-fold vision:

1. Caring for the environment.
2. Promoting appropriate development.
3. Improving the quality of life.
4. Promoting access to opportunity.

2.1.3 The Structure Plan set out the following strategic land use objectives:

Caring for the Environment

- To protect and enhance the diversity and distinctiveness of the natural and built environment,
- To create quality environments now and for the benefit of future generations.
- To adopt a precautionary approach where there is uncertainty about the ability of the environment to accommodate change.

Jobs and Homes

- To promote quality, mixed use and energy efficiency.
- To provide a range and choice of quality housing and employment opportunities in appropriate locations.
- To promote the sustainable use of land and buildings.
- To enable social inclusion.

Community Infrastructure

- To reduce the need to travel.
- To promote safe, convenient and integrated cycle, pedestrian, public transport and road network infrastructure and services.

3. CONTEXT AND COMPONENTS OF CHANGE

Scottish Government Planning Circular 1/2009 sets out that an early task of planning authorities will be to monitor changes in the principal physical, economic, social and environmental characteristics of their area. It is important to set the context within which the Plan has operated and demonstrate how changes will have affected its delivery and objectives. Key issues and trends can be identified from a review of physical, demographic and economic data, and this is set out below.

The legislative framework for Planning in Scotland has very recently undergone a major overhaul through the Planning etc (Scotland) Act 2006, and guidance on the purpose of planning from the Scottish Government has also moved on. Sustainable development underpinned the strategy of the Plan, but it is now accepted that a sustainable development policy is a much wider concept than environmental sustainability. Basic principles now encompass environmental limits; a strong, healthy and just society; a sustainable economy; good governance; and using sound science responsibly. At the same time the amount of information and advocacy with regard to climate change and its practical implications is burgeoning.

Another major change relates to the land area covered by the Plan. The Structure Plan and Local Plan, which comprise the existing Development Plan, cover very different geographical areas to the Local Development Plan. The LDP area, at 416 square miles, only represents 48% of the total council area, but retains 90% of the population.

3.1 PHYSICAL CONTEXT

3.1.1 Stirling Council covers an area of 869 square miles and is located in the centre of Scotland, where the highlands of Scotland meet the lowlands. It covers 2.8% of Scotland's land area and extends from Tyndrum in the north to the Glasgow commuter villages of Killearn and Strathblane in the southwest and the former mining villages of Plean, Cowie and Fallin in the east. Over 50% of Scotland's population live within an hour's travelling time of Stirling, which is more than any other city in the country.

3.1.2 The main urban area and the most densely populated part of the region where roughly half of the total population live, consists of the City of Stirling and its neighbouring communities of Dunblane and Bridge of Allan. However, urban land use accounts for only 3% of the Stirling Council area. Woodland and farmland account for 22% and 28% respectively, while the most extensive land cover type is open uplands (now mostly in the National Park). The area is sparsely populated relative to many areas at only 39 persons per square kilometre overall. The great diversity of topography, climates, soils and other variables has led to a rich variety of habitats, and every one has been influenced by human activity. Removing the National Park from the Development Plan area has a significant effect on the types of topography and habitats remaining.

3.1.3 The physical context is set out in greater detail in the Council's State of the Environment Report (updated regularly – see Appendix 2), which identifies and reports on the condition of key aspects of the environment of the Stirling area. By presenting a snapshot of environmental conditions and setting a baseline for monitoring change, it provides a tool for better understanding and management of the local environment.

3.2 DEMOGRAPHIC CONTEXT

Population and Households

- 3.2.1 Changing numbers and characteristics of people and households is possibly the most crucial factor in the ability of the Council to sustain communities, provide services and intervene in the management of land use for its area.
- 3.2.2 In 2010, Stirling accounted for 1.7% of the total Scottish population. Stirling has been growing in population size, and this trend is set to continue, both in terms of total population and working age population. By 2032 Stirling is forecast to remain at 1.7% of the total Scottish population, driven by a population rate increase of around 7%, similar to that of Scotland.

Table 1: Population 1998-2010

Year	1998	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Stirling Council	84680	86200	86150	86370	86370	86930	87810	88190	88350	88740	89850
LDP Area	76311	76311	77404	77239	77371	78005	78869	79275	79406	79849	80875

Source: Scottish Neighbourhood Statistics, Small Area Population Statistics (SAPE) and GROS Mid-year Estimates

- 3.2.3 According to GRO estimates, the population of Stirling Council Area increased by 5170 people over the 12-year period 1998 to 2010. The corresponding estimated increase for the LDP Area was 4537. The fact that the growth in population was largely a result of net migration and not natural change points to the success of area as a place to live. The age structure of the population is also changing and this has important implications for services the Council provides. The number of children fell by 160 over the 2000 to 2010 period, while the numbers of working age people increased by 1730. However, the greatest change was in the numbers of people of pensionable age, with an additional 2120 people, representing a 17% increase.
- 3.2.4 There has also been a significant year-by-year increase in household numbers as the table below illustrates. The percentage increase between 2001 and 2010 was approximately 7%, which is significantly higher than the 4.2% population increase over the same period. This implies that even if the population does not increase, there may still be higher demand for housing and other services, as new, smaller households are formed.

Table 2: Stirling Household Estimates

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
35,544	35,961	36,454	36,658	36,958	37,164	37,328	37,555	37,789	38,048

Source: General Register Office for Scotland

- 3.2.5 The average household size in Stirling decreased from 2.43 in 2001 to 2.36 in 2010, and is projected to fall further to 2.15 by 2016. The total number of households in Stirling is projected to rise to 45,090 in 2033, which is an increase of 20 percent from 2008. In Scotland as a whole the projected number of households is set to increase by 21 per cent over the same 25 year period.
- 3.2.6 The changing distribution of population across the Stirling area is very important to land use policies, but there is difficulty in getting accurate

estimates for the various settlements, especially with reference to change over time, because of changing geographies and methods of calculation. Another picture of the size of a settlement can be drawn from calculating the number of residential properties within the settlement boundary. Both these aspects are shown in the table below. Most of the rural area of Stirling Council has been incorporated into the National Park, which cuts off a northern section of land around Ardeonaig from the rest of the LDP area. Although, this detached part of the LDP area contains few people and is not particularly important in terms of overall strategy, it is still significant in environmental terms.

Table 3: Population and Dwellings in Settlements

LDP Area: Settlements	Population	Dwellings
Arnprior	130	60
Ashfield	140	64
Balfron	1885	857
Blairlogie	65	29
Buchlyvie	590	270
Cowie	2495	1134
Deanston	485	220
Doune	1141	525
Dunblane	8345	3793
Fallin & Throsk	2782	1246
Fintry	650	296
Gargunnoch	910	403
Killlearn	1980	901
Kippen	1160	527
Plean	2035	924
Stirling, Bannockburn, Bridge of Allan & Cambusbarron	45769	22022
Strathblane/ Blanefield	1987	850
Thornhill	530	240

Source:

Population: Settlement/locality estimates GROS 2008

Dwellings: Residential properties on Stirling Council Corporate Address Gazetteer at September 2011

3.3 ECONOMIC CONTEXT

The Economy

- 3.3.1 There was a sustained period of economic growth over the Plan period until 2007. The strong growth of the Stirling economy up until 2007 was led by growth in office-based sectors. There was significant pressure for development sites for housing, retail, business and other land uses. The recent recession has had a significant impact on the economy, with business start-ups down in 2008, though there was some improvement between 2009 and 2010, and unemployment rising. While employment growth averaged 3% per annum between 2002 and 2007, significantly higher than the 1% average annual growth for Scotland as a whole, there was a 2% decrease in employment in Stirling between 2008 and 2009, though this was lower than the 3% decrease for Scotland as a whole.
- 3.3.2 Some of the main economic changes that have taken place over the plan period are summarised overleaf.

- According to Business Demography 2009 data, the Stirling economy had 3,435 active enterprises in 2009, accounting for 2.3% of active enterprises in Scotland as a whole and an increase of 12% over the 2004 to 2009 period, higher than the 10% increase for Scotland as a whole.
- Key sectors for the Stirling economy in employment terms in 2009 (BRES, Nomis) were health (14.8%), retail (11.3%), public administration & support services (7.2%), education (9.2%), accommodation & food services (8.8%) and business administration & support services (7.2%).
- In comparison to Scotland as a whole, Stirling had higher concentrations of employment in 2009 in construction, retail, accommodation & food services, financial & insurance, public administration & defence and education.
- Despite the recession, a number of sectors experienced growth in employment terms between 2008 and 2009. These sectors were motor trades, transport & storage, information & communication, financial & insurance, property, professional, scientific & technical, public administration & defence and health.

Economic Activity

3.3.3. Statistics on economic activity give an insight into the economic health of the area:

- In 2010, 69.8% of the population aged 16-64 in the Stirling Council area were in employment, lower than the Scottish average (71.0%).
- Stirling experienced an increase in unemployment between July 2010 and July 2011, with the proportion of population aged 16-64 unemployed and claiming Jobseekers Allowance increasing from 3.0% to 3.4%. Stirling's unemployment rate was lower than the Scotland average in July 2011, at 3.4% compared with 4.3%.
- The proportion of Stirling's population that is aged 16-64 (proxy for working age) increased slightly between 2005 and 2010, but is still lower than the Scotland average at 64.8% compared with 65.7%. By 2033, the proportion of Stirling's population that is aged 16-64 is projected to drop to 56.4%, slightly lower than the 57.1% average for Scotland as a whole.
- 75.5% of Stirling's population aged 16-64 was defined as economically active (in work or seeking work) in 2010, lower than the Scotland average of 77.0%.
- People are travelling further to get to work. Between the 1991 and 2001 Censuses, the number of people in Forth Valley traveling short distances (less than 5 km) to work went down, while the number traveling medium distances (10 to 40 km) increased and the number traveling longer distances (40 km plus) increased most of all.

Table 4: Economic Activity Rates										
Population Aged 16-64 (GROS)										
	2010		2005		5-year change		2001		9-year change	
Stirling	58,212		56,095		3.8%		56,137		3.7%	
Scotland	3,430,814		3,332,712		2.9%		3,286,645		4.4%	
Working Age Population as proportion of Total Population (GROS)										
	2010			2005			5-year change			
Stirling	64.8%			64.5%			0.3%			
Scotland	65.7%			65.4%			0.3%			
Economic Activity Rates (% of People Aged 16-64) (Annual Population Survey)										
	Total			Males			Females			
	2010	2007	3-year change	2010	2007	3-year change	2010	2007	3-year change	
Stirling	75.5	78.5	-2.8	79.9	86.1	-6.2	71.8	71.5	0.3	
Scotland	77.0	77.5	-0.5	82.3	83.4	-1.1	71.9	71.8	0.1	

4. PERFORMANCE OF THE PLAN

The performance of the Development Plan can be looked at from two different perspectives. The first of these is a spatial perspective, to determine whether land has been developed as envisaged in the Plan. The second is to see what has been achieved for each of the policy areas outlined in the Plan.

4.1 CARING FOR THE ENVIRONMENT

4.1.1 In the Structure Plan, policies and proposals relating to a wide range of topics come under the heading of "Caring for the Environment": nature conservation; landscape; countryside; greenbelts; environmental enhancement; countryside management; the built environment; flooding; minerals; and waste management. A number of indicators have been chosen to measure performance in these topic areas.

Natural Heritage

4.1.2 The Development Plan area has a wide diversity of species and habitats and therefore a high nature conservation value. It follows that nature conservation is an issue that required to be addressed within the Plan. Conservation value adds to an area's attractiveness as a place to live, work and visit and ecological resources are an economic, educational and recreational asset of key importance.

4.1.3 The Plan area contains a significant number of sites designated and protected for their wildlife and habitat value (Table 5). There have been changes to the number, extent and status of sites since the existing policies were adopted, with the aim of increasing protection. In the whole LDP area, 7327 hectares (about 6.8% of the land area) is designated for its national or international nature conservation importance, with 4206 ha having international status. There are a number of sites that have been designated as being important for nature conservation at the European level. There has been no significant development on designated sites during the Plan period.

4.1.4 Planning applications made within or adjacent to Special Areas of Conservation (SAC) were examined in greater detail. There were very few applications within the actual boundaries. Proposals for the extraction of peat within the Flanders Moss SAC have been refused. There have been a number of applications approved adjacent to the River Teith SAC close to Stirling City. Suitable planning conditions should ensure that proposed development on land adjacent to protected sites mitigates any adverse effects.

Table 5: Designated Protected Areas within the Stirling Council and LDP areas

Designation	Stirling Council Area		LDP Area	
	No of Sites	Area (ha)	No of Sites	Area (ha)
Sites of Special Scientific Interest (SSSI)	77	47,968	44	25,631
Local Nature Reserves (LNR)	1	6	1	6
National Nature Reserves (NNR): Wholly within boundary	1		1	
National Nature Reserves (NNR): Partly within boundary	3		3	
Special Areas of Conservation (SAC)	11	18,367	8	16,296
Special Protection Areas (SPA): Designated under the Wild Birds Directive for wild birds and their habitats.	Small parts of the Firth of Forth and Loch Lomond SPAs are within the Stirling Council Area.			
Ramsar: Designated under the Convention of Wetlands of International Importance.	Small parts of the Firth of Forth and Loch Lomond Ramsar sites are within the Stirling Council Area.			

Source: Scottish Natural Heritage, Joint Nature Conservation Committee

Built Heritage

4.1.5 There are many historic buildings, villages, towns, gardens and landscapes within the Stirling Council Area. There is clear evidence of how much the historic environment contributes to a sense of identity and place, and also to the area's economy. Stirling's historical connections and buildings are considered to be one of the Area's greatest strengths. Much of the historic environment is given statutory protection through specific designation such as listed building, conservation areas and scheduled ancient monuments. Table 8 provides an overview of the built heritage designations in the Stirling Council area. Only 3 new monuments have been added to the schedule for the LDP Area in the last 10 years. Although 6 have been descheduled because they had dual status, they are still protected by being listed.

Table 6: Built Heritage Designations

Historic Designations	Stirling Council Area	LDP Area
Listed Buildings	2681	1491
Conservation Areas	34	28
Scheduled Ancient Monuments	191	148
Archaeological Sites	5837	3389
Tree Preservation Orders	119	82

Landscape and Countryside

- 4.1.6 The Stirling Area has a rich diversity of landscapes, and a range of designations have been used to protect those areas recognised as being of local, regional or national importance. Areas considered nationally important for their outstanding scenic quality are designated as National Scenic Areas (NSAs). The current NSAs were identified in the late 1970s and no new designations have been made since that time. There is only one small NSA within the LDP area, the southern tip of Loch Rannoch/ Glen Lyon.
- 4.1.7 Stirling Council's current local landscape designations are termed Areas of Great Landscape Value (AGLVs), and four of these have been designated through the Development Plan. Such designations indicate that the scenic qualities of an area are highly valued in local terms and are given a degree of protection in planning policies.
- 4.1.8 An examination of the outcomes of planning applications over a three-year period (Table 7) demonstrates how successful policies have been in protecting the value of this resource. As part of the Countryside, AGLVs account for 66% of the Council area but much of this is now within the National Park. The sample for planning applications in AGLVs is therefore small. Between 2005 and 2010 only 49 residential applications were determined, with 37 being approved (76%). This probably reflects the situation whereby applications will only be made when special circumstances suggest that success may be forthcoming. The proportion of approvals in the AGLVs is slightly higher than the proportion in the Countryside overall.

Table 7: Applications for New Housing Development within Urban Areas and the Countryside

Applications July 2005 to June 2010	Applications in Countryside		of which:				Applications in Urban Areas	
	No.	%	in AGLVs		in Green Belts		No.	%
Approved	131	68	37	76	18	44	232	72
Refused	31	16	6	12	10	24	41	13
Withdrawn etc	32	16	6	12	13	32	47	15
Totals	194	100	49	100	41	100	320	100

Source: Stirling Council Planning Applications Database 2010

- 4.1.9 One of the purposes of planning policies is to guide development to the correct locations, and for the most part this means within existing settlements where infrastructure already exists. Between July 2005 and June 2010, 62% of all applications for new housing fulfilled this criterion. This is a reduction from 2008 when the proportion (July 2005 to June 2010) was 65%, and still leaves a significant number of applications in the countryside. Over the majority of the period under consideration, the development planning context for housing development in the Countryside, unless by conversion of existing buildings worthy of retention for their rural character, required to be justified by an operational need. However, in 2009, the Council's housing in the countryside policy was relaxed in order to increase rural housing flexibility and to bring our policy approach in line with the former SPP15. It is arguable that the number and success rate of applications bears testimony to the continuing vitality of the rural economy, as well as to commuter and retirement pressure for new housing through the conversion of farm steadings and other buildings, and changes to the planning policy approach.

4.1.10 194 planning applications for dwellings within the Countryside Policy Boundary were determined, with an overall approval rate of 68%. This is a marginally lower rate than urban areas, where 72% out of a total of 320 were approved. There were very similar numbers of applications approved in the countryside for each of the years considered. Nearly one third of applications in the countryside were refused or withdrawn after submission over the 5-year period.

4.1.11 Green Belts, being both a national and local policy, represent one of the strongest presumptions against development. The 1999 Local Plan established the original boundaries and extensive additional Green Belt was designated in conjunction with the Major Growth Area. Only 3% of the Council's planning area (4014 hectares) is designated Green Belt, so the numbers of applications might be expected to be small, and this is indeed the case. Between 2005 and 2010 only 41 applications were determined, with only 18 being approved.

Previously Developed Land and Greenfield Development

4.1.12 Vacant and derelict land is monitored in accordance with Scottish Vacant & Derelict Land Survey standards, and a survey is submitted to the Scottish Government each year. The amount and distribution of vacant and derelict previously used land is an indicator of environmental quality and offers the opportunity for redevelopment and environmental improvement. It is also an important sustainability indicator.

Table 8: Stirling Council Area - Vacant & Derelict Land 2002 to 2010

	2002	2003	2004	2005	2006	2007	2008	2009	2010	% Change 2002-10
Derelict and Urban Vacant Land (ha)	194	200	193	188	182	166	164	169	170	-12%
Derelict Land (ha)	155	164	159	159	154	141	139	138	138	-8%

Source: Scottish Vacant & Derelict Land Survey 2010

4.1.13 Statistics show that the trend over the Plan period is one of reducing vacant and derelict land (Table 8). At 31 March 2001 Stirling Council had 68 vacant or derelict (VDL) sites covering 200 hectares. At this time 3% of the urban area was covered by vacant or derelict land. By 2010, 55 sites covered 170 hectares. The average derelict site in the countryside is much larger (at 11.2 hectares), than one in a settlement (average 1.7 hectares). The percentage of Stirling Council's population living less than 500 metres from a derelict site is 12%, which is a low figure compared with many other authorities, and is lower than the Scottish average of 29.8%.

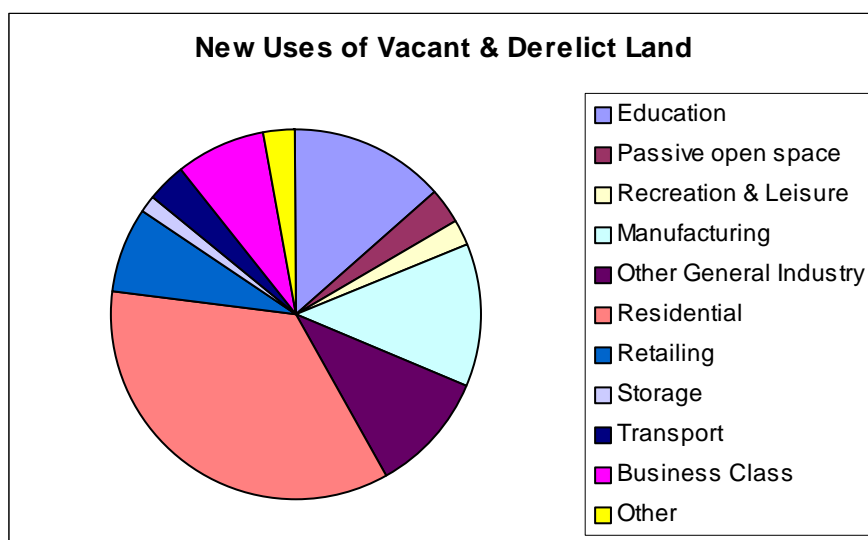
Table 9: Stirling Council Area - Derelict and Urban Vacant Land 2010

Derelict Land		Urban Vacant Land		Total Derelict and Urban Vacant Land	
Area (ha)	No of sites	Area (ha)	No of sites	Area (ha)	No of sites
138	26	31	29	170	55

Source: Scottish Vacant & Derelict Land Survey 2010

4.1.14 It is interesting to look at the new uses for those vacant & derelict sites, which have been taken up in recent years. The pattern of take up was very variable in terms of area for each year. If definitional change with respect to the survey is taken out of the equation, the actual amount of land being taken up has increased significantly since 2004. In 2004, 2005, and 2006, the take up figure was 6 to 7 hectares, but had increased to 13.26 hectares in 2008. The following pie chart (chart 1) shows the variety of uses that vacant land has been put to between 2004 and 2008. By far the largest category is residential use. However if business class, manufacturing, other general industry and retailing are taken together, more land (15.73 hectares) has been given over to employment uses. Figures are outlined in greater detail in Appendix Table 3.

Chart 1: 2004 to 2008



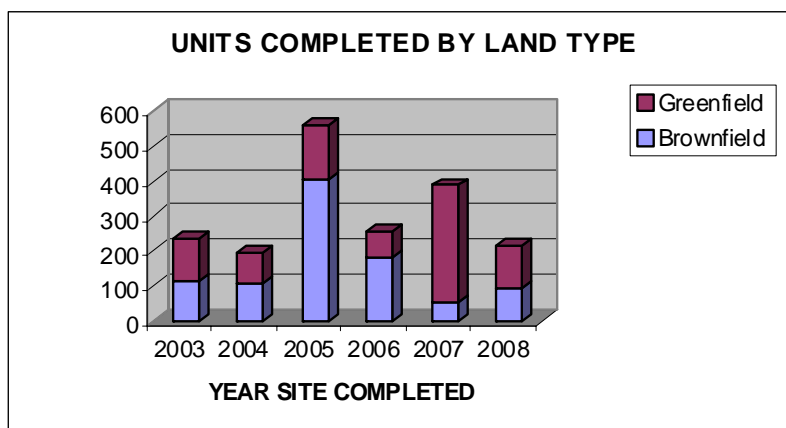
4.1.15 The re-use of previously developed land contributes towards the Structure Plan theme of 'working towards sustainable development'. Monitoring allows us to establish what type of land new developments will be built on and to follow the number of applications approved on brownfield and greenfield sites. Table 10 shows most of the new housing development applications approved between July 2005 and June 2008 were on brownfield sites, with an overall brownfield/greenfield split of 69:31. However the ratio varied from year to year, with 2006/07 having the highest number of applications approved on brownfield sites.

Table 10: Applications Approved for New Housing Development: Brownfield and Greenfield sites

Number of Applications	Greenfield		Brownfield	
	Number	%	Number	%
July 2005 – June 2006	26	30	59	70
July 2006 – June 2007	20	21	76	79
July 2007 – June 2008	37	42	52	58
Total	83		187	

Source: Stirling Council Planning Applications Database 2010

Chart 2: 2002/03 to 2007/08



4.1.16 There is a time lag between consent being granted and development being completed. Data relating to house completions on the larger sites that are included in the Housing Land Audit and is shown in table 11 below. The relatively small number of dwellings created by conversions of existing properties is included as brownfield. The proportion of housing completions on both brownfield and greenfield sites has varied greatly each year since 2002, and the reasons for this are not immediately obvious. Windfall sites tended to be brownfield and some local plan sites were greenfield. Despite brownfield approvals being high for 2006/07, for those urban sites completed during the same year, the proportion of brownfield units appears particularly low. Urban completions included mostly greenfield sites allocated in the development plan and located on the edge of settlements such as Buchlyvie, Callander, Cowie, Fallin, Plean, Thornhill and Kippen. The few sites completed in the main urban area of Stirling were brownfield sites. In contrast the sites completed during 2004/05 when the proportion of brownfield units reached 72%, included the conversion of a large building at Cambusbarron, the redevelopment of a quarry at Dunblane, and previously developed sites in Stirling.

Table 11: Housing Completions on Urban Sites*

	Greenfield Dwellings		Brownfield Dwellings	
Jul 2002 – Jun 2003	120	51%	117	49%
Jul 2003 – Jun 2004	88	47%	104	53%
Jul 2004 – Jun 2005	155	28%	407	72%
Jul 2005 – Jun 2006	73	33%	172	67%
Jul 2006 – Jun 2007	337	88%	46	12%
Jul 2007 – Jun 2008	123	60%	87	40%
Jul 2008 – Jun 2009	85	89%	10	11%
Jul 2009 – Jun 2010	68	44%	88	56%

* All completions on those sites where the last house was completed during the period indicated

Source: Stirling Council Housing Land Database 2010

Renewable Energy

- 4.1.17 The commitment to increase the amount of electricity generated from renewable sources is a vital part of the response to climate change. Renewable energy is one policy area where there have been major changes and developments since the current development plan was prepared. In March 2011 the Council approved new Supplementary Guidance on Wind Turbines.
- 4.1.18 Table 12 details the progress of current proposals for wind farms in the area at March 2011. Applications that have been refused, or sites which are at pre-application enquiry stage or are being promoted through the Local Development Plan process are not shown. Since 2007, 3 wind farms have been constructed and 9 others have reached the stage of Environmental Impact Assessment Screening or beyond. Braes of Doune with 36 turbines is by far the largest of these. A community turbine is included in the Earlsburn total of 15 turbines, although it is sometimes referred to as a separate site. Only Braes of Doune required to be approved under Section 36 of the Electricity Act as its output is over 50 megawatts. The other sites were or will be determined under the Town & Country Planning Act approval process.
- 4.1.19 In recent times there has also been a great deal of interest in energy generation from private individuals and businesses from single or small groups of turbines. A total of 26 sites comprising 37 turbines have been approved since 2003, some of which are significant in scale (over 50 metres). However, more monitoring is required to find out whether these have been erected. There has been a significant rise in the number of applications received for this type of development in recent years, with 17 received in 2011 to date alone, which is more than was received in the period between 2001 and 2009 inclusive. It is considered that this recent and significant rise in application numbers is due to the introduction of feed-in tariffs in the UK in April 2010. Under this scheme energy suppliers are required to (compulsory for the big six energy suppliers) make regular payments to individuals and communities who generate their own electricity from renewable or low carbon sources such as solar electricity panels or wind turbines.

Table 12: Wind Farms

Site name	Stage at March 2011	Number of turbines	Turbine height	Nominal output (Megawatts)
Braes of Doune	Operational (2007)	36	100m	72 Mw
Earlsburn	Operational (2007)	15	115m	37.5 Mw
Craigengelt	Under construction/complete	8	125m	24Mw
Kingsburn	EIA scoping (but not being progressed at present)	8	115m	20Mw
Earlsburn (Ext)	Planning application submitted	9	115m	22.5Mw
Muirpark	Planning application submitted	11	125m	33 Mw
Craigivern	EIA scoping	Up to 20	100m	40Mw
Rullie (L Coulter)	EIA scoping – but abandoned July 2010 (Falkirk turbines still being progressed)	3 (+ 10 in Falkirk)	126m	6 Mw (26 Mw in total)
Daldorn	EIA screening	8	125m	24Mw
Rosehill Farm	EIA screening	3	99.5m	2.4 Mw
Craigannet	EIA scoping	6	126m	15Mw

Source: Stirling Council Planning Applications Database

Flooding

4.1.20 Flooding, from rivers, the estuary and urban drainage systems, is one aspect of water management in the Plan area that has increased in significance. Flood risk and flood protection/alleviation has raised its profile as more severe weather leads to different or more frequent flooding problems.

4.1.21 The Scottish Government GIS Service published estimates in 2007, (based on 2006 data), that suggested 8.2% of the Stirling Council area, containing approximately 3000 properties, was at risk from the 1:200 year flood (river and coastal). Most of the properties at risk from coastal flooding are also at risk from flooding from rivers. Communities at risk from fluvial flooding include Stirling, Bridge of Allan, Dunblane, Fintry and quite large rural areas. The larger known potentially floodable areas have been confirmed and additional flood risk areas identified as a result of major flood risk studies commissioned by Stirling Council. However, flood risk associated with small watercourses and due to surcharging from drainage networks has still to be investigated. At the present time there are only three developments (two housing and one recreation and sport), that involve either land raising or compensatory flood storage, and these are all close to the River Forth within Stirling City.

4.2 JOBS AND HOMES

Housing Stock and Tenure

4.2.1 The development of housing sites over the period of the Plan has resulted in a significant increase in housing stock in both the LDP Area and the whole Stirling Council Area. Dwellings in the latter area, increased from 37167 in 2002 to 39246 in 2010, a rate of 5%, slightly less than the Scottish rate over the same period (6%). The 39246 dwellings that made up Stirling Council's stock in 2010 represented 1.6% of Scotland's total stock, which is unchanged since 2002.

Table 13: Total Dwellings Stirling Council Area

Year	Total Dwellings	Yearly Increase
2002	37167	-
2003	37566	399
2004	37815	249
2005	38198	383
2006	38316	118
2007	38582	266
2008	38984	402
2009	39091	107
2010	39246	155

Source: GRO Area Profiles 2010

4.2.2 The tenure breakdown at the time of the 2001 Census was not dissimilar to that of Scotland as a whole, although Stirling had a greater proportion of owner occupied dwellings. Nearly one quarter of Stirling's housing was in the social rented sector. The 2001 Census is the last accurate breakdown of tenure available. However we do know that between 2001 and 2011, 1650 social rented dwellings were sold as a result of right-to-buy legislation. In contrast, only 699 affordable dwellings were built on sites completed in the period July 1998 to June 2010. Another 800 dwellings were lost through

demolition in regeneration areas such as Cornton, Cultenhove and Raploch. The number of privately rented dwellings has also increased in recent years, although exact figures are not available.

Table 14: Tenure of Occupied Dwellings at 2001 Census

	No of Units in Stirling	% of Stirling total	Scotland %
Owner Occupied	23632	66	63
Council Rent	7714	22	22
Other Social Rent	967	3	5
Privately Rented	2825	8	7
Other	370	1	3
TOTAL	35508	100	100

Source: 2001 Census

4.2.3 At the time of the 2001 Census, 4% of the housing stock was vacant, however the GRO 2010 estimates now put this figure at 2.8%. In 2001, the Stirling area had 1032 vacant properties and 523 second/holiday homes; in 2010 it is estimated that there were 1088 vacant properties and 435 second/holiday homes.

Development of Housing Sites

4.2.4 All the housing sites allocated in the 1999 local plan and in Alteration 1A were examined to see what progress had been made in development terms. This analysis was carried out on a settlement-by-settlement basis and the National Park was excluded since it is now moving forward with its own Development Plan. This is summarised in Table 15 below and set out in greater detail in Appendix Tables 2 and 3.

Table 15: Local Plan – Town and Village Housing Proposals Summary

Progress at 30/6/2010	Sites Carried Forward	No of Sites in plan	Sites Wholly Developed	Sites Partly Developed	Sites Remaining	Dwellings Completed	Dwellings To Be Built	Sites Removed
Total 1999 Plan	-	57	45	4	6	2468	404	2
Total Alt 1A	11	16	4	2	10	407	859	0
Total Alt 2	-	1	0	0	1	0	2500	0
Total all Development Plan	-	74	49	6	17	2875	3763	2

Source: Stirling Council Housing Land Database 2010

4.2.5 In the 1999 Local Plan, allocated sites were distributed widely throughout the settlements in both the Core and Rural Village Areas, although Stirling and Dunblane had more sites than other settlements. Of the original 57 sites allocated, only 6 remained totally undeveloped at June 2010. A total of 2468 dwellings were completed on the 49 sites that had been developed. There were 404 dwellings to be built on the remaining sites in Cowie, Doune, Deanston, Fallin and Thornhill. In addition to the sites carried forward from the 1999 Local Plan, Alteration 1A allocated an additional 16 sites and 9 of these were concentrated in Stirling and Balfron. Buchlyvie, Bannockburn, Cambusbarron, Cowie, Doune, Dunblane and Plean all had one additional site allocated. By June 2010, these new sites had produced an additional 407 dwellings and 1263 remained to be built.

4.2.6 The progression of Alteration 2, The Major Growth Area, has been delayed by the current economic situation and a legal challenge, which was lodged in November 2006 by the Bellway, Hallam, Taylor, Woodrow Development Consortium. This was heard at the Court of Session in May 2008 and subsequently dismissed on 9th July 2008. As yet no master plan or consents are in place for the development of the area, but it is anticipated that there is capacity for 2500 dwellings.

Housing Completions

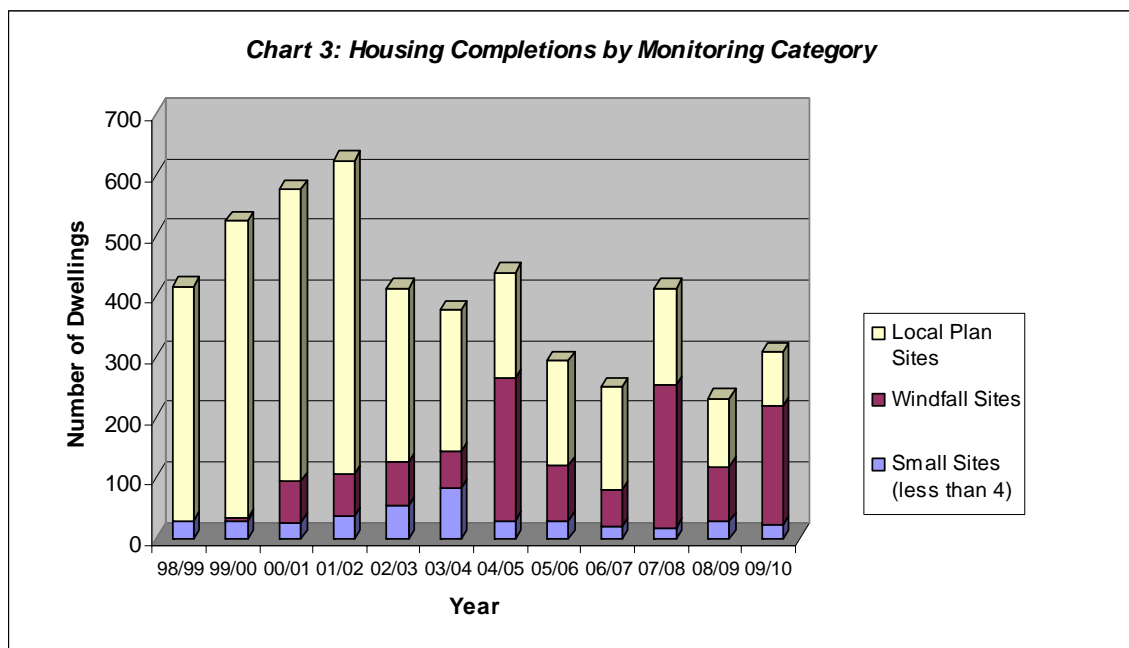
4.2.7 A total of 4872 dwellings were completed in the Stirling Council Area between 1998 and 2010. However the number of completions varied from year to year, the highest being 624 during 2001/02 and the lowest 232 during 2008/09. This resulted in an average completion rate of 408 dwellings per annum.

4.2.8 Out of a total of 4872 dwellings completed during this period, 24% were in windfall developments. In 2004/05 and 2009/10 the majority of completions took place on windfall sites, however, these are exceptions and in ten of the last 12 years, the majority of completions have been on Local Plan sites. Although relatively small in number each year, completions on small sites (those with a capacity of under 4), totalled 408 over the same period, and were significant in both rural and urban areas. Chart 3 shows how the number of windfalls has increased over the lifetime of the current Development Plan.

Table 16: Housing Completions by Monitoring Category 1998 to 2010

Monitoring Category	Small Sites (less than 4)	Windfall Sites	Local Plan Sites	TOTAL
1998/99	30	0	386	416
1999/00	30	4	490	524
2000/01	27	67	483	577
2001/02	36	70	518	624
2002/03	54	72	287	413
2003/04	83	61	233	377
2004/05	30	235	174	439
2005/06	30	90	173	293
2006/07	19	61	170	250
2007/08	18	235	161	414
2008/09	28	91	113	232
2009/10	23	196	90	313
Total	408	1182	3278	4872
Average per annum	34	98.5	273	406

Source: Stirling Council Housing Land Database 2010



Monitoring the Structure Plan Housing Land Requirement

4.2.9 The Housing Land Audit (HLA) which is carried out by Stirling Council each year, is the established mechanism for monitoring housing land, and therefore has a key role in ensuring that an adequate supply of housing to meet the Structure Plan requirement is maintained. It also provides a comprehensive description of all the housing sites in the Stirling Council Area available at a snapshot in time.

4.2.10 It is useful to compare the housing land supply available at the time of the 1998 Audit with the 2010 Audit. In 1998 the Stirling Council Area established land supply (the total land supply) comprised 2327 units, 63% of this being effective (free of development constraints). The 2010 Housing Land Audit had an established land supply of 6370, with 32% of this considered effective. The number of units in the established land supply (excluding small sites) has therefore increased by around 174% over this period, and the effective land supply by 40%. Both allocated sites in the Development Plan and windfall sites have contributed to boosting the supply.

4.2.11 Policy H1 of the Structure Plan stated that the Council would review the calculation of the housing land requirement and bring forward additional land if the contribution from conversions, windfalls and small sites fell below the level assumed in the Structure Plan for more than two consecutive years. The Structure Plan housing land requirement for Stirling Council Area was set at 8603 dwellings to be completed between 1998 and 2017. Up until 2008, an adequate supply of land was being maintained, and the number of dwellings required was on track to be completed. House building activity has however been badly affected by the economic downturn.

4.2.12 In order to calculate the outstanding requirement from 2010 to 2017, actual completions (1998 to 2010) are subtracted from the 8603 target. This results in 3731 dwellings still needing to be built between 2010 and 2017. An average figure of 533 per annum therefore needs to be achieved. The

effective land supply alone (2010-2017) has capacity for 2436 dwellings. Neither this figure nor the 2286 dwellings anticipated to be built between 2010 and 2017 would meet the outstanding requirement, with the shortfall to 2017 being 1445 dwellings. Without the development of the Major Growth Area (MGA), this shortfall will rise to 1595 dwellings. In the 2010 HLA, completions from the MGA are not expected until 2015/16, but this site's output is quite crucial after this date. Meeting the requirement also depends heavily on windfall sites being developed.

Table 17: Outstanding Housing Land Requirement

	2002 Structure Plan 1998-2017	2010 HLA Actual 1998-2010	Outstanding Requirement
Base Supply	2805	2632	
Local Plan Requirement MGA	3857 0	646 0	
Windfall and Small Sites	1941	1590	
Total	8603	4872	3731
Per Annum Total	453	406	533
Per Annum Windfall	102	133	

4.2.13 The assumption made in preparing the Structure Plan, that windfall and small sites would provide 35% of the housing requirement after the 1998 base supply and a 15% additional flexibility element were taken into account, is still proving a valid one. An analysis of actual and anticipated windfall and small site completions shows that this category has already contributed 27% of the original requirement. Taking account of known windfall sites, by 2017 this percentage is expected to reach 54%. In addition, even more windfall sites (as yet unknown), can be expected to enter the land supply in the next 8 years up to 2017. Table 18 shows that to meet the 35% target, an average of 102 dwellings per annum from windfall need to be built. An average of 133 has already been achieved, and this figure is expected to rise to 221 over the next 8 years.

4.2.14 Predicting housing completions and estimating the effective and non-effective land supply for the 2010 Housing Land Audit has been made particularly difficult in recent years by the market conditions brought about by the economic recession. Evidence suggests that housing market activity has reached a low level in comparison to previous years, with completions falling to 232 in 2008/09 compared to a peak of 624 in 2001/02. Sites that were considered affective in previous Audits because of an absence of physical constraints to their development are now considered non-effective because of the lack of developer interest as a result of the limited availability of both developer and purchaser finance (mortgages, particularly those for first-time buyers). However, completions were higher in 09/10 than they were in 05/06 and 06/07, the period before the recession took effect, which may suggest that the house building market is showing some signs of recovery. The information from the 2011 Housing Land Audit will show whether this apparent up-turn has continued. If market conditions do improve, a number of site releases, which have been delayed in the current market, may be able to be brought forward. The non-effective land supply comprises 4944 dwellings: with a change in economic circumstances, a significant proportion of this

would become available to meet the predicted shortfall in the Structure Plan housing requirement.

Affordable Housing

4.2.15 Affordable housing remains a key Scottish Government priority. The number, distribution and means of provision of affordable dwellings between July 1998 and June 2010 has been analysed and a number of salient points have emerged. A total of 699 affordable dwellings have been built since July 1998, and 477 (68%) of these have been within the Stirling urban area. A significant amount of affordable housing development has also taken place in Balfroun, Buchlyvie, Cambusbarron and Kippen

Table 18:
Affordable Housing on Sites Completed July 1998 to June 2010

LDP Area		Within LLTNP	
Settlement	No of Units	Settlement	No of Units
Balfroun	30	Aberfoyle	41
Bannockburn	8	Callander	37
Buchlyvie	26	Killin	33
Cambusbarron	68	Lochearnhead	27
Cowie	16	TOTAL	138
Deanston	10		
Kippen	41		
Plean	23		
Stirling	477		
TOTAL	699		

Source: Stirling Council Housing Land Database 2010

4.2.16 Some settlements (outwith the National Park) have seen no additional affordable housing provision at all over the period under consideration. These include Bridge of Allan, Strathblane, Doune, Dunblane, Killearn, and Thornhill. A scheme was completed in Fallin in 1996 and in Gargunnoch in 1998. A site of 18 units was recently completed in Kippen which will be picked up in the 2011 Housing Land Audit, along with others in Cambusbarron (48 units) and Torbrex (23). Another site is under construction in Fallin and building on sites in Doune and Dunblane is expected to start in the near future. Other villages, like Killearn have no suitable allocated sites available.

4.2.17 However, completions have been patchy from year to year. In 1999/2000 and 2005/06 no sites were completed at all. The number of affordable units seems to have peaked in 2007/08 and fallen off again in the last year (Table 19).

4.2.18 For the operation of the affordable housing policy, it is useful to know how many of the completed sites were part of larger owner occupied sites with affordable housing conditions attached, and how many were stand-alone housing association sites. So far conditions attached to a planning consent for private housing have resulted in 20 low cost ownership homes (16 in Cowie and 4 in Stirling) and 12 housing association homes to rent. A significant amount of new affordable housing development has been completed within the Cornton (91 units) and Culterhove (75 units) regeneration areas of

Stirling and the regeneration of the Raploch should deliver a total of 246 affordable units when completed in addition to a significant amount of new private housing development. To date 64 affordable units have been completed in Raploch.

Table 19:

Affordable Housing on Sites Completed July 1998 to June 2010			
Year Completed	No of Units		
	LDP Area	Within LLTNP	TOTAL
1998/1999	23	0	23
1999/2000	0	0	0
2000/2001	103	0	103
2001/2002	74	0	74
2002/2003	15	41	56
2003/2004	17	33	50
2004/2005	80	0	80
2005/2006	0	0	0
2006/2007	75	56	131
2007/2008	192	0	192
2008/2009	14	8	14
2009/2010	90	0	90
TOTAL	683	138	813

4.2.19 There are a number of other proposals for affordable housing in the pipeline (see Appendix Table 4), including 53 dwellings in Doune, 68 dwellings in Stirling City and 12 in Cambusbarron, all with planning consent. The Major Growth Area at Durieshill accounts for 43% of the 1462 output from sites that have potential for affordable housing, while a site adjacent at Pleanbank Farm accounts for another 8.5% (125 units).

Social Inclusion

4.2.20 One of the objectives of the Development Plan was to reduce social inequalities, and it is useful to know whether the Plan's strategy of targeting policies and resources at tackling areas where there are concentrations of multiple deprivation has been successful. Progress can be measured by means of SIMD, which is the Scottish Government's official tool for identifying small area concentrations of multiple deprivation across Scotland. The SIMD provides a relative ranking for each of 6505 small areas, or datazones, across Scotland and ranks these areas from one, being the most deprived, to 6505, being the least deprived. The three Indices of Multiple Deprivation at 2004, 2006 and 2009 provide a series of snapshots in time of the concentrations of multiple deprivation across Scotland.

4.2.21 Although Stirling's 110 datazones are more concentrated at the least deprived end of the distribution on the overall SIMD, the objective of social inclusion remains a major issue. The area contains datazones ranging from amongst the most deprived to amongst the least deprived. Stirling has 7 datazones in the 15% most deprived on the overall SIMD 2009, and these are clustered

around the Raploch area of Stirling. In 2004 only 6 of the 110 datazones were included. There has been little change in terms of numbers or geography since SIMD 2006, although one datazone in Cornton has moved out of the 15% most deprived, and another one in Cowie has moved in. This suggests that the regeneration policies in Cornton have borne fruit. It has been one of the first areas to see affordable housing completed on redevelopment sites. With similar policies being pursued in Raploch and Culterhove over the last year, these datazones might well move out in the future. Further investigation will be required to understand why Cowie has moved in.

Income, Skills and qualifications

- 4.2.22 Average earnings (gross weekly full time) of residents in the Stirling area in 2004 were £455 or 10% higher than the Scottish average of £412 (source: Annual Survey of Hours and Earnings via Nomis). In 2008, although 12.6% of Stirling Council's population was considered income deprived, (source: SNS), by 2010 gross average residence based earnings in Stirling for residents in full time employment were £529.10 per week, 9% higher than the Scottish average. There is considerable difference (both in absolute and percentage terms) between male and female earnings – the former at £602.70 per week (15.5% higher than the Scottish average) and the latter at £435.10 per week (1% higher than the Scottish average).
- 4.2.23 Table 21 shows that people who live in Stirling, but work outside the local authority area earn more on average than people who work in the Stirling Council area. To encourage more residents to both live and work within the Stirling Council area, it may be necessary to create more highly paid jobs. Although earnings data is not available below local authority level, it is likely that earnings within the rural area are lower than urban Stirling. This is due to the type and sector of job opportunities with its heavy focus on tourism and reliance on part-time and seasonal employment.
- 4.2.24 Stirling has more and higher qualified residents than the Scottish averages, although many of these will commute out of the area. Statistics from the 2001 Census showed that only 26.7% of Stirling Council residents had no qualification compared with the Scottish figure of 33.2%.

Table 20:

Comparison of Stirling residence and Stirling workplace earnings

	Earnings by workplace Stirling (£)	Earnings by residence Stirling (£)
Gross Weekly Pay		
Full-time workers	499.1	529.1
Male full-time workers	599.4	602.7
Female full-time workers	426.1	435.1

Employment Land

- 4.2.25 The amount and distribution of employment land has changed over the Plan period. In 1999 the Employment Sites Register noted 117 hectares of marketable land (that is land available for employment generating development) in the Stirling Council area. 60 hectares of this (comprising 28 sites) were available immediately and free of constraints. In terms of site size,

58% of the sites were relatively small (less than 2 hectares). In contrast there were only 3 sites over 10 hectares in size but these accounted for one third of the total land allocated. 18 sites (58.97 hectares) were allocated for business and industry in the Local Plan and had planning consent, whereas 19 allocated sites (46.35 hectares) did not have planning permission. Three quarters of this land had never previously been developed or used for an urban use.

4.2.26 When analysing the 2009 employment land situation, it was thought more important to categorise sites in terms of availability and type (industrial or office) rather than size. There were a total of 112 hectares in the 2009 supply. In other words, land supply has actually fallen by 5 hectares over the 10-year period. A summary of the supply of allocated employment land is given in Table 22. 10.24 hectares is recorded as being immediately available out of the total of 111.9 hectares likely to be developed over the next 20 years. This category has therefore seen a significant drop since 1999. The total amount of employment land supply for business development over the next 20 years of almost 112 hectares is made up of 59 hectares of land suitable for industrial development and almost 53 hectares of land suitable for office development. Only 5 hectares is immediately available for office development.

Availability	Area (Hectares)
Less than 1 year, (Immediate term)	10.24
1 to under 3 years, (Short term)	30.05
3 to under 10 years, (Medium term)	60.84
Over 10 years, (Long term)	10.77
Total	111.9

Source: Employment Sites Register (Stirling Council, 2009)

Notes: **Immediate term** = being marketed; **short term** = land is serviceable, may have constraints, in local plan or outline/full planning; **medium term** = has some constraints, without full planning; **long term** = has multiple constraints, without full planning.

Development of Employment Sites

4.2.27 The aim of the Structure Plan was to provide a strategic network of sites to allow for economic growth to 2017. Existing sites included:

- Broadleys, Springkerse, Castle Business Park in Stirling
- Stirling Innovation Park in Bridge of Allan
- Barbush in Dunblane
- Bandeath in Fallin

4.2.28 Provision for new sites was to be made in the following general locations:

- Springkerse/ Millhall and Northwards extension of Castle Business Park (now known as Kildean Loop) in Stirling
- Bannockburn Interchange/ Corbiewood in Bannockburn
- Extension of Stirling Innovation Park in Bridge of Allan

4.2.29 Proposals for the above sites were carried forward into the Local Plan Alteration 1A, which identifies and maintains a range and choice of employment sites. As of June 2009, a significant number of these sites remain undeveloped. Development progress in the sites listed in the site

framework and in the Structure Plan list of strategic employment sites is described below:

- **Castle Business Park** (south of Drip Road) comprises 11 hectares (28 acres) and 24,000 sq m (263,000 sq ft) of high quality, modern, office space targeted at headquarter type operations. The final phase was developed by 2007, but in 2009 around three quarters of the floorspace was still empty. It has been maintained as an area of prestige office space and Class 4 Uses. There have been no planning applications received or approved since 2005 for any other uses.
- **Castle Business Park** (Phase 2) is a high quality class 4 office location on the Kildean Loop site, close to the existing Park. Business space planned for the site is estimated at around 30,700 sq m (330,000 sq ft). Approximately 14 hectares are still to be developed for employment use although there are flooding constraints. This development will also include a new Forth Valley College Stirling Campus, retail/leisure, and housing within the wider site. The college campus is currently under construction.
- **Corbiewood:** This site remains undeveloped. There is a current application for 20,000 sq m (215,000 sq ft) of Class 4 office space plus 10,088 sq m (108,547 sq ft) of Class 4/5 as a phase 2. This has been recommended for approval but is awaiting a Section 75 agreement.
- **Dunblane Business Park (Barbush):** detailed planning consent was granted in May 2008 to develop a number of office pavilions (Class 4) at Barbush in Dunblane, on a site that extends to 3.1 hectares (7.6 acres). The site can accommodate up to 8,853 sq m (95,292 sq ft) of office space. A subsequent application has been received for a Class 4 office development and Class 1 retail store with a petrol filling station, although the application is as yet undetermined. This former quarry site is on the Vacant & Derelict land register.
- **Springkerse:** Further development has taken place, but only an additional 1.5 hectares has been developed for business use. There has been a loss of approximately 4 hectares of business land with the building of the new High School.
- **Broadleys:** Approximately 24 hectares of land remains, including 15 ha at the Broadleys extension. Business and industrial units were approved in 2007 for most of the other 9 ha. To satisfy the growth in retailing operations associated with trade uses, a site for a 2 ha trade park has been developed from a brownfield redevelopment site and nearly all the units have been taken up. The demand for such a facility had been recognised in the Plan although a specific site had not been selected. Since their completion, a number of applications have been approved for the partial change of use of some of the units within the Trade Park to allow a greater area of retail floorspace than was conditioned in the original trade park consent.
- **Pirnhall, Bannockburn:** This 6.5ha site remains undeveloped, although several proposals have been put forward for the site. A detailed planning application is under consideration for an office development. There are a number of constraints to the development of this site, including access and ground conditions.

- **Crookbridge:** An outline planning application is under consideration for a mixed-use development on this site. While the outline planning application is predominantly for retail and leisure, it also includes 1,395 sq m (15,000 sq ft) of office accommodation.
- **Bandeath:** Although this industrial site covers nearly 150 hectares, there is a lack of activity on most of it. Expansion is proposed for land at Throsk, with approval for a new road and industrial units.
- **Stirling University Innovation Park:** is well situated within the University of Stirling Campus and currently extends to 5.7 hectares (14.9 acres). The Park provides a range of open plan and serviced office / technical accommodation, within a number of pavilions. A recently completed Masterplan exercise outlined potential to extend the Park to around 15.6 hectares (38.6 acres).

4.2.30 As regards local employment sites identified in the Plan, progress is as follows:

- **Forthside, Stirling:** The cinema complex is now completed, several restaurants have opened, and the first phase of the housing development is nearing completion. Planning consent has been granted for a conference hotel and an office development of 11,800 sq m (127,000 sq ft). The development will comprise of two open plan office blocks. One of the redundant historic Barracks buildings has been converted to office use, while another has consent for a restaurant/ public house and offices.
- **Burghmuir, Stirling:** Demolition of the buildings on this site has taken place as the first stage of redevelopment of the site. Outline planning consent has been granted for various mixed uses, including retail, hotel, residential, food and drink and assembly and leisure.
- **Plean Industrial Estate:** Several industrial applications have been received and approved for this area.
- **Hillfoots Road, Bridge of Allan:** This factory site has been occupied since 2003 and no further development has taken place.
- **Depot Balfron:** No further proposals or development have taken place.
- **West Piling Site, Doune:** This site is no longer considered vacant, as it is now part of a proposed housing development, which will include the addition of two new business units.

4.2.31 Three Rural Activity Areas were designated in Alteration 1A.

1. **Lochills, Doune:** Consent was granted for the erection of an industrial unit in July 2006.
2. **Killearn Hospital:** There have been no proposals or development on this site.
3. **Callander East:** Now under the jurisdiction of National Park.

Retail and Commercial Developments

4.2.32 The strategy of the Plan was to direct all shopping development to the identified hierarchy of centres and to maintain and enhance the vitality and

viability of town and local centres. Retailing is recognised as one of the biggest contributors to the economy of the Stirling Area. The Plan contained a number of proposals the progress of which is outlined below:

- **Springkerse Retail Park, Stirling:** This centre has been developed up to the limits set by planning approvals. A restricted range of bulky household goods such as carpets and furniture are sold here so that it does not compete directly with the role and function of the City Centre.
- **Forthside Stirling:** a cinema and 2 restaurants (adding 3,535 sq m of floorspace) opened in 2008. Applications have been approved for the conversion of a former engine shed to a bar and restaurant, a five-storey office building and a conference hotel. However there is no shopping provision as envisaged in the Structure Plan.
- **Raploch, Stirling:** A superstore of 5215 square metres (gross) has been constructed and an extension is currently under construction which will extend the store to 9295 sq.m. gross and includes a mezzanine floor.

4.2.33 There have also been a number of windfall sites developed for retail use.

- A Marks and Spencers store has been developed on a former garage site in Dunblane.
- A Dobbies Garden Centre has been developed on a brownfield site to the west of Stirling.
- A supermarket site in St Ninians, Stirling has been redeveloped for another supermarket.

4.2.34 A survey is carried out each year and attempts to give an overview of changing retail and commercial activity (uses, occupiers and floorspace) within the Stirling Area where this type of use is concentrated: that is the City Centre, Out of Centre areas and outlying local and village centres. Other city and local centre uses apart from retailing are also included.

4.2.35 The geography of Stirling City Centre has changed over the years. For the 2008 Survey, the area known as Forthside was added to its boundaries. The City Centre can be divided into a number of areas with specific land use characteristics. The largest variety of uses, that is, café/ restaurant, leisure, hotel, library, ecclesiastical and discotheque uses are found out with the prime retail area.

- The Prime Retail Area: this area includes the Thistle Marches shopping centre and the immediate street outside. Retail uses, comparison-shopping in particular, dominates.

- The Secondary Retail Area: service uses feature particularly strongly in this area. However it is this area, which has experienced the most change with regard to use and occupiers.

- The complementary Retail Area is an area where food, drink and leisure uses feature strongly.

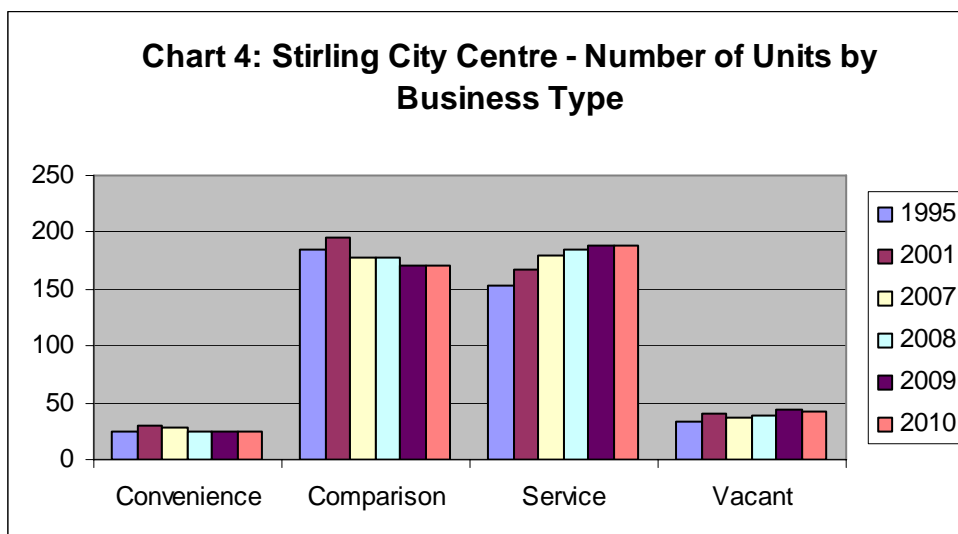
4.2.36 Other out of centre retail development exists at Springkerse Retail Park, with a total existing floorspace of 33,000 sq m and consent for an additional 2,787 sq m. Although a variety of businesses exist, they have been tightly restricted to ensure only household goods are sold. The Local Plan Alteration 1A recognised the need to consider identifying a location for a 'trading estate' within the Stirling urban area. A brownfield site became available, and the Springkerse Trade Park has recently been completed and is nearly fully

occupied. The aim, enshrined in a condition of the original consent for the trade park, was to provide some limited retail floorspace, but only in association with, and ancillary to, trade uses. However, two of the units have already been given approval for purely retail use. This is further evidence that some retail uses have encroached into the industrial and business estates of the City.

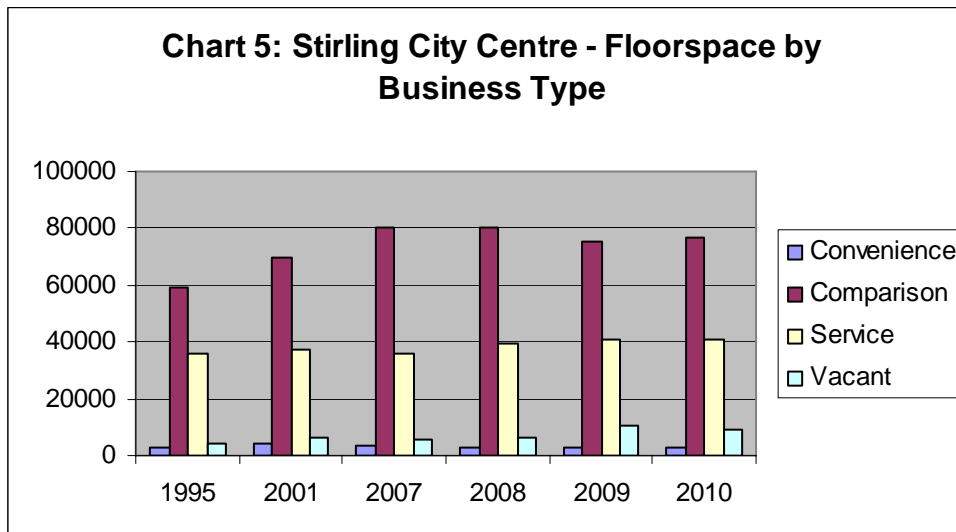
4.2.37 Most local centres perform a predominantly service and local shopping role with comparison retailing featuring less strongly, with the exception of Bridge of Allan and Dunblane.

4.2.38 Charts 4 and 5 give an overview of changing activity in terms of uses and floorspace within Stirling City Centre (see also Appendix Tables 5 and 6). Overall, the City Centre has seen a consistent increase in retail shopping and service uses since 1995, although the amount of new retail floorspace provision has slowed since 2000. The Thistles Marches Shopping Centre was completed in 1997. There is a range and mix of uses throughout the centre, which has altered significantly since 1995.

4.2.39 Comparison shopping floorspace continues to make up the bulk of the floorspace in the City Centre. Survey results indicate that convenience floorspace only made up 2% of total floorspace in 2010, and that the number of convenience units has continued to decrease. Comparison retailing continues to be popular here with the main goods sold being clothing and footwear. Around 80 units are devoted to selling such items. Further increases in sports goods retailer, chemists and jewellers are in evidence since 1995. However there have been reductions over the same period in the number of shops selling electrical goods (particularly hire shops), furniture, household textiles and soft furnishings. Therefore shops selling personal goods remain particularly high in number, while the number of shops selling household goods continues to reduce. The conclusion to be drawn is that the development of Out of Centre food and household shopping outlets such as those located in Springkerse Retail Park has had a significant effect on the provision of such goods in the City Centre.



Source: Retail Monitoring Report 2010



Source: Retail Monitoring Report 2010

4.3 COMMUNITY INFRASTRUCTURE

For the purposes of monitoring, community infrastructure is considered in its widest sense. It includes transport, water, drainage and waste; and also education, health care and leisure facilities and open space.

Education

- 4.3.1 Stirling Council provides nursery, primary, secondary and specialist provision for approximately 15,000 children. Early years provision is provided both by the local authority in its own establishments and by partnership nurseries. There are 42 primary schools with the Stirling Council area, which support in the region of 6500 children. Provision varies from small schools within rural communities, some with single figure rolls, to larger primary schools of up to 500 pupils within the main urban areas. A total of 7 secondary schools support approximately 6000 pupils. Six of these are within new or recently refurbished buildings and the remaining school is currently undergoing a major refurbishment. The authority's one special school is located within the recently built Raploch Community Campus.
- 4.3.2 Stirling Council used a PPP process as a funding mechanism to modernise secondary school provision, but this did not take a longer-term view of capacity. Occupancy levels within primary and secondary schools have traditionally been high, and this has important implications for the ability to accommodate pupil growth associated with new house building.
- 4.3.3 The location of schools and nurseries in relation to residential areas has important implications for sustainable transport given the amount of car traffic generated by the school run. The new facilities that have been located within communities allow easy access by foot or cycle. However two new high schools have moved to the edge of Stirling, and one is in a non-residential area. The must have resulted in an increase in car journeys.
- 4.3.4 There are also significant higher education facilities within the Plan area. Forth Valley College are in the process of building a new college campus at

Kildean in Stirling, adjacent to the Raploch. This will take up part of a larger site, which will also be developed for residential and business use. This provides an example of mixed land use in an area that has suffered deprivation and that is currently undergoing regeneration. Stirling University is an important educational and economic resource for the Plan area. However it also affects the population structure (immigration of person in the student age group) and the housing profile, due to demand for accommodation suitable for students.

Water and Sewerage

4.3.5 Scottish Water, which is a commercial concern, is the statutory body responsible for water supply and sewerage. Although water supply is not generally a problem in the Stirling Area, foul drainage disposal and treatment capacity is an issue affecting the timing and location of development, especially in rural settlements. Development potential has been affected out with the areas of Balfron, Cowie, Fallin, Plean, Dunblane and Stirling. Available investment has been reserved largely for upgrading existing wastewater treatment works in order to conform to discharge standards and guarantee environmental protection, rather than to create additional treatment capacity. Therefore, the scope of the Council to direct development to what might otherwise be appropriate locations has been limited by this. The following table sets out Scottish Water's investment in wastewater infrastructure since 2006, both proposed and completed.

Table 22: Scottish Water Investment Programme LDP Area since 2006

Waste Water Treatment Works	Work Completed/Proposed	Value £M	Year of completion/proposed completion
Stirling	Process upgrades and capital maintenance work	10.0	Two stages 2007 and 2008
Plean	Process upgrades, capital maintenance work and growth project	2.2	2008
Balfron	Process upgrades, capital maintenance work and growth project	2.0	2006
Gargunnoch	Provide secondary treatment with growth allowance	1.3	2006
Killlearn	Improvements to storm water discharges	1.3	2006
Deanston and Doune	Growth project	1.0	2006
Fintry	Process upgrade	1.0	2007
Doune	Process upgrades and capital maintenance work	0.4	2012
Kippen	Process upgrades and capital maintenance work	1.0	2012
Strathblane	Capital maintenance work	0.8	2011
Inversnaid	Process upgrade	0.2	2012
Killlearn	Process upgrades and capital maintenance work	0.5	2012
Total		21.7	

Source: Scottish Water, September 2011

Waste Management

- 4.3.6 Waste management is an integral part of any new development. Different land uses generate different levels of waste, and waste management itself has important land use implications. There are design and land area implications at the level of the individual house or business, for example dealing with the storage space required for waste recycling. This can be incorporated into new build developments, but Stirling Council area has a large number of older buildings, some of which are more difficult to deal with, for example because of road layouts or listed status.
- 4.3.7 There has also been a need for land for waste management facilities in the last few years. There have been a number of planning applications approved at Lower Polmaise at Fallin. This area was originally identified as an area where inert waste would be land filled. In the intervening years the site has diversified to accommodate a number of types of disposal facilities, and is playing a large role in the recycling objectives of the Council. The landfill site, which is now used, is in Falkirk. Moving waste outwith the Stirling area has implications for traffic flows.
- 4.3.8 Over the Plan period waste management has risen up the political agenda and regulations and targets for recycling and waste reduction have become far more stringent. Table 24 below shows how total levels of waste have risen with increasing households, but also shows the changing proportions of landfill and recycled or composted waste. The Plan has encouraged the general principles of sustainability in relation to waste: seeking to reduce, reuse, and recycle; the proximity principle; and the restoration of landfill facilities after completion of use.

Table 23: Stirling Council: Waste Management

	Tonnes	Landfill %	Recycled or Composted %
2001/02	41,000	92	8
2007/08	45,200	58.5	41.5

Transport

- 4.3.9 One of the major factors in determining appropriate locations for new development is accessibility, the ease and availability of transport. Since the Plan has been in place, there have been a number of projects completed within the Council area and just outside it, which have altered the context of transport within the Stirling Area.
- The re-opening of the Stirling to Alloa railway line has created an alternative form of public transport extending east for both passengers and freight.
 - The new upper Forth crossing (the Clackmannanshire Bridge) has provided an additional crossing point of the River Forth, upgraded the M876, and helped improved road links and ease traffic congestion to the east.
 - The current upgrading of the A80/M80 should eventually improve road links to the south.

- Two park and ride facilities have been constructed within Stirling City, at Springkerse and Castleview, and these are linked to the city centre by a frequent bus service.
- A newly constructed pedestrian bridge across the railway line in Stirling City Centre links the established central area, railway station and bus station with the new developments in Forthside.
- Stirling ring road junction improvements
- Continued development of local and national cycle network
- Relocation of Stirling ring road from within Raploch residential area to around its periphery
- Ongoing programme of safer routes to school projects including introducing 20mph zones around all schools.
- Continued provision of supported bus services and demand responsive transport services

4.3.10 Accessibility within the Stirling Council Area is outlined in Table 24 below. Figures from the Scottish Household Survey travel diary for 2007/08 showed that the purpose of most trips was for commuting and shopping. Looking at the average distance travelled, the figures revealed that 68% of people lived less than 5 km from the trip destination, which suggests a huge potential for walking or cycling. The Sustrans '2010 Hands Up Travel Survey' showed that 49% of travel to school journeys were by foot or cycle. The 2006 Local Transport Strategy document gives the length of the cycle network as 157 km and of rights of way as 680 km. This compares with the 1,146km of roads in Stirling (137km of trunk road, 1,009km of local authority road) according to Scottish Transport Statistics, 2010. The importance of walking, cycling and public transport to accessibility is emphasised by car ownership statistics. At the time of the 2001 Census, 31% of residents did not own a car. By the 2005-06 Household Survey, the same percentage of households did not have access to a car.

Table 24: Stirling Council Area - Accessibility

- 71% of the population live within 60 minutes travel by public transport of Larbert Hospital
- 83% of the population live within 60 minutes travel by public transport of Stirling Royal Infirmary
- 75% of the population live less than 15 minutes by public transport to a GP
- 61% of the population live less than 15 minutes by foot to a GP
- 55% of 10-15 year olds live within 30 minutes travel by public transport to their nearest sports centre
- 46% of 16-19 year olds live within 30 minutes travel by public transport of a further education establishment
- 79% of job seekers (795 people) live within 30 minutes travel by public transport to a job centre
- 91% of job seekers (910 people) live within 60 minutes travel by public transport to a job centre

Time by public transport	Number of Council residents with access by bus to the following locations:		
	City centre	University	Castle Business Park
30 minutes	65,103	35,386	34,108
60 minutes	195,698	122,000	122,206

Source: Tactran Accession Report, 2009

Developer Contributions

4.3.12 The Plan has had an important role to play in enabling the necessary infrastructure to support new development. Where infrastructure is obtained through the planning process, the terms “developer contributions” or “planning gain” is often used. This has been done by means of planning agreements, especially the use of Section 75 agreements, without which many new developments would have been unable to proceed because of infrastructure constraints. In some cases difficulties concluding the Section 75 agreement causes the delay of the proposed development, for example agreements have never been signed for proposals at Corbiewood and Drip Road, Stirling.

4.3.13 Between January 2004 and September 2009, a total of £4,253,903 was received in contributions. £1,251,538 has been spent. Schools capacity has been a very important factor in the ability of an area to absorb new housing development. But in addition to education, agreements were concluded for improvements to transport, play and sports facilities. Contributions have also enabled affordable housing development. Table 25 lists monies raised for specific projects.

Table 25: Developer Contributions

Type of Improvement	Project	Amount	Item Total
Affordable Housing	Milton Brae, Whins of Milton	£219,000	£219,000
Schools	Cowie Primary Extension	£454,000	
	St.Ninian's Primary capacity	£300,000	
	Riverside Primary extension	£375,000	£1,129,000
Roads	Weaver Row junction improvements	£39,000	
	Douglas Street traffic management	£10,000	
	Area wide traffic management	£200,000	
	Traffic calming	£150,000	
	Signal timing adjustment, improve Clock roundabout	£235,000	
	Off site road works in vicinity	£100,000	
	Sustainable transport measures and Travel Plan	£10,000	
	City Transport Strategy	£151,800	
	Traffic monitoring equipment	£10,000	
	Muirton Road improvements	£115,000	
	Mill Road car park	£18,000	
	Vehicle activated signage	£5,000	
	To be determined	£5,000	
Road Traffic Order	£1,000	£1,049,000	
Play	Willow Brae play area	£31,600	
	King Georges Field play area	£66,060	
	Buchlyvie play area	£11,900	
	Beechwood masterplan	£135,750	
	Laighhills Park	£49,500	
	Currently unallocated	£73,600	
	Kings Park	£234,450	
Lade Mill	£62,250		

	Boreston or Thistle site	£100,100	
	Polmaise Park	£21,750	
	Craigforth/ Woodside play area	£42,200	
	To be determined	£7,760	£836,920
Sports Facilities	Sports Village	£75,000	£75,000
TOTAL			£3,308,920

DELIVERING THE STRATEGY - OUTCOMES

5.1 What has been achieved: Locational Strategy

- 5.1.1 The Structure Plan locational strategy seeks to guide development to sustainable locations. By looking at the framework and the Plan's allocated sites, the extent to which this has been achieved can be assessed. The locational framework divides the area into three basic types.
- 5.1.2 **The Core Area**, which largely falls within the definition of a sustainable location, includes the major towns of Stirling, Bridge of Allan and Dunblane. The eastern villages of Cowie, Fallin, Throsk and Plean are also included. This area is where most of the Plan's allocated sites are located, and where development during the Plan period has actually been concentrated. This outcome has been compatible with providing developments in locations that have reduced the need to travel, thereby encouraging energy efficiency. It has also allowed more efficient use of existing infrastructure and services. Any new infrastructure, which has had to be provided, can be considered as adding to the facilities serving that part of the Council Area where most of the population is found.
- 5.1.3 The pattern of development has taken the form of centrally located sites within Stirling, but includes greenfield peripheral sites in Bannockburn, Dunblane and the eastern villages. Development, which has taken place on the significant number of infill and brownfield sites in this Core Area, has also contributed to the more efficient use of land and environmental improvements. Significant regeneration has taken place in the Cornton, Culenhove and Raploch areas of Stirling City, re-using land and improving residential amenity and affordability. It has to be conceded however, that a significant proportion of the occupiers of the new housing developments in the more affluent parts of this Core Area may not actually choose to access local employment opportunities. The availability of upper market housing may actually have increased the amount of longer distance commuting to Glasgow and Edinburgh, where the higher paid employment required is located.
- 5.1.4 It is the Core Area that the pressures of competing land uses have been most evident, especially close to the City Centre. Protecting land for business and industrial use is one of the main aims of the Plan. However business land in Springkerse has been given over to retail uses, and consent has been granted for change of use to retail use on other sites (for example STEP and Burghmuir). The existence of suitable policies in the Plan has not been enough to resist the pressures coming from the higher land value retail uses. Suitable sites for larger stores are not available within the centre itself. The obvious conclusion is that there is a demand for edge of centre retail sites, and business and industrial uses are being pushed outwards from the City Centre. Springkerse and Broadleys have expanded for business use, but most of the available peripheral sites in these locations have not yet been developed.
- 5.1.5 **The Rural Villages Area**, west of Stirling and south and east of the National Park, is an intermediate area with a number of small towns and villages within attractive countryside settings. The Plan sought to reduce overall commuting and protect the environment and quality of this area by restricting new development. The policy of focusing on settlements with a range of services

and facilities has worked. The Plan has succeeded in keeping development to infill sites and within the village envelopes. Despite perceived high development pressures in this area, a number of allocated sites and infill sites with planning consent have not yet been progressed.

- 5.1.6 Callander, Balfron and Doune are defined as rural centres where most of the rural housing development was to be focused. Both market and social rented housing was and is being constructed in Callander. In Balfron substantial private development and a smaller social rented site been built, (one site is currently under construction). However two other allocated greenfield sites (which include a requirement for affordable housing) on the edge of the village have no firm proposals as yet. The site in Doune is expected to start in the near future and has consent for affordable and market housing - delays are a result of the economic situation. This illustrates the difficulties of providing affordable housing that is dependent on bringing forward private sector development on the remainder of the site. Although the Plan's emphasis in this area was to be on affordable housing, a greater amount of private housing will probably be the end result.
- 5.1.7 As regards economic development, the rural activity area in Doune has been relatively successful in attracting employment opportunities. Several consents have been recently granted in spite of the economic downturn. There have been no proposals for the allocated employment site in Balfron.
- 5.1.8 **The Upland Areas** include the detached area north of the National Park, the western Ochils and the area south west of Stirling. The Plan's policies have allowed for appropriate rural development (based on agriculture and forestry) and associated housing, which has helped to sustain local facilities, employment opportunities and tourism. This can be seen as the least sustainable area for development due to its remoteness and topography, and very limited housing development has taken place. However, it is this area, which has been subject to substantial interest for windfarm developments. Those that are now operational have had significant impact on the landscape, although they have made a contribution to renewable energy production.
- 5.1.9 The evidence shows that overall the appropriate development has been guided to the intended locations, at both the strategic and individual site level. It can be argued that land allocations for housing have proved more viable than those for employment uses and this may purely be a result of the strong market demand for housing over most of the Plan period. There have been a number of developments on sites not identified in the Plan. The most significant of these have been located within the Core Area on main transport routes close to Stirling, and as such can be regarded as meeting sustainability criteria. This indicates pressures on areas of countryside close to Stirling city, especially where there may already be some development.
- 5.1.10 The area to the west of Stirling off the A84 adjacent to Drip Bridge has been a focus for new development. The new Stirling Agricultural Centre has been recently developed on a greenfield site within the countryside policy boundary. It provides a centre piece for livestock sales in Scotland as well as office (1,300 sq m) and retail accommodation (1,555 sq m) for agriculture-related business. Dobbies Garden Centre also located in this area on a brownfield site. There has been interest in other adjacent sites for employment use. At Craigforth, which is also within the countryside policy boundary, an outline planning application has received approval for a major

mixed-use development. The application includes two business parks, which extend to eight hectares and represents a major expansion of the existing site.

- 5.1.11 An area to the east of Stirling off the A907 around Manor Farm has also seen a number of planning applications for small-scale business development. In Stirling, a park and ride facility opened in 2009 adjacent to the M80 motorway junction and Castle Business Park. This meant sacrificing one and one-quarter hectares of Green Belt land, but will help improve amenity in the city by reducing traffic congestion.

5.2 What has been achieved: The Environment

- 5.2.1 By far the majority of development, which has taken place over the Plan period, has been directed to the urban areas. The loss of countryside has been minimal and the diversity of landscapes has been maintained. The Plan has also contributed to improving the environmental amenity of built up areas by encouraging appropriate land uses and high design standards.
- 5.2.2 The various designations, which offer legal status, have been of vital importance in protecting the natural and built environment. However as the environment experiences changes (for example climate, development etc) it will be necessary to keep these features, their designations and boundaries under review to ensure they are kept up to date and protection is continued. It has also been noted that although an environmental feature may have protection, proposed developments adjacent to it may have adverse consequences, for example by affecting the feature's setting or other environmental factors.
- 5.2.3 The fact that the amount of vacant and derelict land has decreased over the Plan period has made a positive difference to the environment. However a few vacant and derelict sites in urban locations across the Council Area have not been brought forward for development. Productive economic and social uses have resulted from previously used land, and additional homes and jobs have been provided on such brownfield sites.
- 5.2.4 It is difficult to balance the needs of the rural population with the desire to reduce the need to travel and thereby increase sustainability. Throughout the Plan period, demand for housing in the countryside has remained strong. It can be argued that this is evidence of the continuing vitality of the rural economy, the housing needs of the rural population, and also the desire of commuters and retirees to live in an attractive environment. Policies have been successful in restricting new housing unless the occupant had a genuine need to be housed to manage land in the vicinity for agriculture, horticulture or forestry, or operate an established rural business. Consents given for housing in the Greenbelt or in Areas of Great Landscape Value were very small in number. Strict design criteria have been applied, as have occupancy conditions. The Plan has supported the re-use, conversion and rehabilitation of redundant rural buildings as proven by the number of converted farm steadings which have boosted the rural housing supply and improved the quality of the built rural environment. However, in 2009, the Council's housing in the countryside policy was relaxed in order to increase rural housing flexibility and to bring our policy approach in line with the former SPP15. Applications have been monitored from February 2009 to September

2011 to assess the impact of the new policy approach. Table 27 shows the number of houses applied for under the policy and the outcome of these applications. The monitoring shows that the proportion of houses in the countryside that are refused is relatively low, but also that around one quarter of all units that are proposed are withdrawn.

Table 26: Housing in the Countryside Planning Applications Feb '09-Sept '11 (including undetermined applications)

	New units	Redeveloped units	Converted units	Total units
Number of units applied for:	148	78	46	272 (100%)
Approved units:				120 (44%)
Refused units:				27 (10%)
Withdrawn units:				66 (24%)

5.3 What has been achieved: Jobs and Homes

- 5.3.1 Evidence from the number of housing completions that have taken place over the last ten years supports the view that the Plan has provided a range and choice of quality housing opportunities in appropriate locations. Although a number of affordable homes have been built, most of these opportunities were provided by the private sector, which has been the dominant sector in the housing market over the Plan period. In Stirling, as in other areas, there has been a marked tenure shift, with a decline in social rented housing and an increase in the private sector, especially private rented. New dwellings built have ranged from smaller flats to larger executive detached houses.
- 5.3.2 A significant number of affordable homes have been built, especially in regeneration areas. A large proportion are replacing dwellings that have been demolished rather than increasing the total stock. Limited public sector and housing association funding has restricted the amount of new build in the social rented sector.
- 5.3.3 In buoyant economic times, as experienced until recently, private developers were able to out-bid social housing providers on restricted budgets for available sites. One consequence of the economic downturn is that more sites are being made available to Housing Associations, and Stirling Council is now in the process of building its own housing after a break of many years. The availability of social rented housing has not kept pace with the need. As the stock of social rented homes has been reduced by right to buy legislation, privately rented dwellings have filled some of the gap left.
- 5.3.4 The affordable housing policies contained in the Plan have contributed to increasing the affordable housing stock. However this policy has had unintended consequences. Some land owners have not been willing to release their allocated sites for affordable housing, either because they do not want affordable housing on the site, or because they were hoping for a higher land value from the private sector. Applications have come forward where the number of proposed dwellings was restricted to below the threshold criteria. A number of sites intended for affordable housing have not been developed as quickly as expected. This is the case where the delivery of affordable houses was dependent on private development through developer contributions, and private building has stalled because of the credit crunch.

- 5.3.5 Up until 2008 the housing land supply was on target to reach the Structure Plan housing land requirement. This was in a large part due to the contribution of windfall sites, including the former school sites released through the PPP process coming on to the market, and despite the MGA not coming forward as quickly as expected. The conclusion can be drawn is that new settlements are especially sensitive to the vagaries of the economy. There are long time scales involved in developing certain sites, especially those where infrastructure is not in place. The numbers coming forward through windfall have been very unpredictable from year to year.
- 5.3.6 The global financial crisis has had a significant impact on the ability to deliver new homes. It can be argued that the definition of an “effective” site in the housing land supply now needs to be re-visited, since the main constraint to new building is development finance. Some land, which is free from physical and ownership constraints, is no longer expected to be developed within a five-year time frame. Planning for housing land therefore becomes more complicated. The amount of development that has taken place has been very variable from year to year, despite an adequate supply of land being available. Windfall developments become increasingly significant in the later years of the Plan as allocated local plan sites fall out of the supply. In some cases, developers have chosen to prioritise windfall sites before allocated sites.
- 5.3.7 Further analysis was required to determine whether policies encouraging brownfield as opposed to greenfield development are proving successful. Results were variable from year to year. It needs to be remembered that construction on larger sites is phased over a number of years. Looking at the 8-year period from 2002 to 2010, in total marginally more units were completed on urban greenfield sites than urban brownfield sites (the proportion is 50.4% to 49.6% - see table 11). This has changed from the 2010 monitoring statement when it was recorded that over the 6-year period 2002-2008, the proportion of completions was marginally higher on urban brownfield sites than urban greenfield. The only message that can be derived from this is that policies encouraging building within the towns and so increasing the proportion of brownfield development, with attendant sustainability benefits, are not being entirely successful.
- 5.3.8 However, the greenfield sites that have been developed for housing, have generally arisen as a result of Plan allocations and have been incorporated within settlement boundaries. Although representing a loss of countryside, they were chosen to accord with specific criteria through the Plan process: to minimise environmental damage, to be adjacent to transport links, and services and facilities in the adjacent settlement. The Plan has encouraged development on brownfield sites where the opportunity has arisen, making the most efficient use of existing resources and minimising the potential blight of a vacant site. Where brownfield sites have become available and have been free of constraints like contamination, they have generally been quickly taken up.
- 5.3.9 Mixed-use developments can be considered as sustainable developments and offer the opportunity to plan a high quality urban place. By incorporating a number of different uses and facilities, such areas can benefit from cross subsidies from the different elements; the need to travel can be reduced; and services can benefit from economies of scale. Developments, which are underway at Raploch and at Forthside, are two examples of a successful

mixed-use development. In Raploch, housing, education and community facilities have been built side by side, while at Forthside housing, leisure and business uses are adjacent to each other. Proposals have come forward for a mixed-use development at Kildean, incorporating a college, housing and business land, and the college is now under construction. However the mixed-use development of the MGA has not yet been delivered due to the economic situation. In the Stirling situation, mixed-use development on previously used land where basic infrastructure already existed, has been easier to deliver than on a greenfield site where infrastructure has to be provided from scratch by the private sector. In addition the concept of mixed-use may need to be considered as something to be master planned over a wider spatial area. The site area involved is crucial. In the Plan most allocated sites were for one specific use and did not cover a large land area.

- 5.3.10 The Plan has provided a range and choice of employment opportunities in appropriate locations by allocating a hierarchy of sites throughout the Stirling Area. The fact that the total amount of available employment land has not decreased significantly over the last ten years, is in some part due to the fact that additional land was allocated in Alteration 1A (Broadleys Extension and Kildean in Stirling) and windfall sites (for example at Manor Farm and Drip Road) have come forward. However the figures would also suggest that allocated sites have not been taken up as expected. Land intended for business and industry has also been lost to other uses, for example housing in Doune, and retail and education in Stirling. Sites in the City have been under particular pressure for change of use, as evidenced by the applications for mixed-use development at Burghmuir and Crookbridge. Attracting development to the Rural Activity Area at Killearn Hospital has been particularly problematic due to contamination and infrastructure issues.
- 5.3.11 The most pertinent figure, however, concerns the amount of immediately available business land. There has been a significant drop over the last 10 years from 60 to 10 hectares. This suggests that the most easily developed sites have been taken up, leaving those with constraints, which have not been resolved over the intervening period (for example at the Pirnhall interchange and Corbiewood). 46% of employment land taken up since 2005 has been developed for uses other than office and industrial. The amount of business land under pressure for alternative uses is around 41 hectares, 37% of the supply of employment land for the next 20 years.
- 5.3.12 As the choice of serviced sites for business, industry and office use is now extremely limited, the Structure Plan's aim of providing a strategic network of sites to allow for economic growth is at risk. An adequate supply of business space is required to ensure long-term economic growth within the Stirling Council area. Employment opportunities may have been jeopardised by the lack of readily serviced and available sites.
- 5.3.13 The Plan has promoted the vitality and viability of the City Centre and other town centres by directing development to these centres where possible. It has also supported new shopping provision, but some of this has had to locate in edge of centre sites, for example Springkerse in Stirling. The Plan has allowed the sequential approach to be applied to shopping development, and the City Centre has been expanded to include Forthside. A number of planning applications for supermarkets and superstores have demonstrated the demand for sites out with the City Centre. The household centre at Springkerse has increased the range and choice of shopping available and a

trade park has also been developed. However, there is continued pressure for out of centre retail sites. The Plan has also supported the role of local centres, since meeting basic shopping needs locally reduces the need to travel and generates income within these centres, for example, the recently developed Marks and Spencer supermarket in Dunblane.

5.4 What has been achieved: Community Infrastructure

- 5.4.1 Sustainable development cannot be achieved without the necessary infrastructure. What the outcomes of the Plan have shown is that sites where the appropriate services do not exist and cannot be provided will not be delivered. Infrastructure constraints need to be overcome before development can take place. However, the Plan has contributed to ensuring that the new development that has taken place and the associated infrastructure provision have supported each other.
- 5.4.2 In order to deliver the Plan's strategy, it has been necessary for all the various departments of Stirling Council to co-operate with each other, and for the Council to work in partnership with other agencies and private developers. Investment by Scottish Water has been particularly crucial in allowing expansion to take place, especially where its programme of work has taken account of planned development. The use of Sustainable Urban Drainage, in association with the Scottish Environment Protection Agency, has been promoted through the Plan's policies.
- 5.4.3 The importance of managing to obtain infrastructure via the planning process has been demonstrated. The funding made available through "planning gain" has in a number of instances been vital to allowing a development to proceed. Improvements in transport, schools, play provision, and sports facilities have been brought about by developer contributions gained through planning agreements and benefits have been spread throughout the LDP Area.
- 5.4.4 The Plan has supported the Local Transport Strategy, which provided the policy framework for sustainable transport. The vision is: that by widening travel choice, tackling the effects of traffic, and maintaining the transport network, the Council aims to provide a safe, reliable, well-maintained and fair transport network that does minimal harm to the environment, contributes to the economy, and promotes social inclusion, health and community safety.
- 5.4.5 The Plan has contributed to increasing accessibility and a wider choice of transport through the appropriate location of new development. By encouraging development to locate in proximity to local facilities and associated land uses, the need to travel has been reduced. Several of the strategic transport infrastructure proposals identified in the Structure Plan have now been implemented. The strategy of encouraging people to use their cars less is proving successful, as the alternatives of walking, cycling and public transport have been made more attractive. Traffic had been expected to increase by 19% between 2006 and 2015 if all committed development takes place. However, the measures of annual average daily traffic flows at 5 locations in Stirling City have actually decreased by around 10% between 2007 and 2010. Typical measures that have been put in place to improve safety around schools include 20mph zones, speed cushions, road narrowing and pedestrian crossings, as well as enabling more walking and cycling by pupils.

5.4.6 It is accepted that despite the Plan's attempts to integrate new development with associated infrastructure facilities, the lack of accessibility and services in rural areas is still an important issue, due to the geographically dispersed nature of the population outwith the main urban area.

5.5 What has been achieved: Outcomes

5.5.1 The evidence suggest that the Plan has contributed to the following:

- protecting the best features of the natural and built environment
- making a difference to the environment by bringing vacant and derelict land back into use.
- delivering quality in new developments and to delivering mixed-use developments.
- encouraging energy efficiency in new developments.
- bringing about the efficient use and recycling of resources and the sustainable use of land and buildings.
- providing development in locations that reduce the need to travel.
- providing a range and choice of quality housing opportunities in appropriate locations.
- providing a range and choice of quality employment opportunities in appropriate locations.
- protecting and enhancing the role and function of strategic shopping centres.
- delivering mixed communities by encouraging mixed tenure developments.
- delivering regeneration benefits to communities.
- delivering safe environments in new developments.
- providing safe, convenient and integrated cycle, pedestrian, public transport and road network infrastructure and services.
- providing efficient use of infrastructure and services and new provision only where essential.
- addressing the impacts of new developments.
- delivering the infrastructure to serve new development.
- encouraging working in partnership with other agencies to achieve the Plan's strategy.

6. CONCLUSIONS

- 6.1 This monitoring report has been able to assess and measure the performance of the Development Plan in a number of significant areas. The conclusion to be drawn is that the existing Plan has been relatively successful in achieving its main objectives. The locational strategy has operated mainly as intended in the Plan and has guided development to sustainable locations. The Plan has also contributed to protecting the environment, and to providing a range and choice of housing and employment opportunities in appropriate locations. The planning process has also contributed to delivering the community infrastructure required for new development, by helping to overcome constraints and provide additional funding.
- 6.2 Preparing this Monitoring Statement has exposed gaps in the information base. Future monitoring needs to consider those subject areas for which collecting and analysing data and gauging plan performance has not been possible. Progress towards meeting objectives and targets needs to be measurable. Information on housing and employment is well covered, but more data is required on development that affects the environment and community infrastructure. As sustainability and energy efficiency become ever more important, it will be necessary to incorporate more accurate monitoring of these factors into the Local Development Plan. It is important to extend the data currently held on development proposals (through planning applications), to data on what actually happens on the ground. It is also necessary to build on the existing baseline information to provide an accurate time line of change in the LDP Area. Monitoring how effectively policies are used should also be incorporated into the process.
- 6.3 Further policy monitoring is contained within the LDP Topic Papers, which were published alongside the Main Issues Report in 2010, and are listed in Table 26 overleaf. They deal with the individual issues covered by the Plan, and explore the effectiveness of the individual policies in greater detail. The topic papers also describe the background and context for the existing policies and explore their specific usage both as a policy tool and in delivering policy outcomes. For most issues there is also an explanation of the current planning policy framework, together with a review of its merits and how it could be adapted to be better fit for purpose, although it should be noted that the policies now being published in the Proposed Plan may differ greatly from those suggested in the Topic Papers.

Table 27: Stirling Local Development Plan: Final Topic Papers List: May 2010

Topic Paper Number	Topic
1	Planning for Sustainable Transport
2	Advertisements
3	Affordable and Particular Needs Housing
4	Business Space – Industrial and Office
5	Climate Change Mitigation and Adaptation
6	Land affected by Contamination
7	Countryside Access & Recreation
8	Fish Farming
9	Green Belts
10	Green Infrastructure and Central Scotland Green Network (CSGN)
11	Historic Environment
12	Houses in Multiple Occupation (HMOs)
13	House Alteration and extension
14	Infill Developments (Housing)
15	Low and Zero Carbon Developments
16	Managing Landscape Change
17	Natural Heritage: Biodiversity & Geodiversity
18	Open Space & Physical Activity
19	Play Space Provision and Maintenance
20	Population and Housing Land Requirement
21	Renewable Energy Developments
22	Retail and Commercial Developments
23	Shopfronts, Lighting and Shop signage
24	Stirling City Centre
25	Sustainable Mineral Extraction
26	Telecommunications
27	Tourism Developments and Accommodation
28	Forestry, Woodlands and Trees
29	Urban Design and Quality Developments
30	Waste Management
31	Water, Flooding, SuDS and River Basin Management Planning
32	Ancillary Developments - satellite dishes, pigeon lofts

Electronic versions of these documents are available here:
www.stirling.gov.uk/localdevplan/councilpapers

APPENDIX 1: BACKGROUND MONITORING INFORMATION

Appendix Table 1: New Uses of Vacant & Derelict Land

Vacant and Derelict Land Sites Taken Up 2004 TO 2008	
	TOTAL ha
Education	5.6
Passive open space	1.22
Recreation & Leisure	0.85
Manufacturing	5.16
Other General Industry	4.36
Residential	14.26
Retailing	3.1
Storage	0.6
Transport	1.45
Business Class	3.11
Other	1.18
TOTAL	40.89
Derelict Reclaimed to Vacant pending new use	0.27
Definitional Change	10.88
GRAND TOTAL	52.04

Source: Vacant and Derelict Land Surveys

Appendix Table 2: 1999 Local Plan – Town and Village Housing Proposals

Progress at 30/6/2010

1999 Plan	No of Sites in plan	Sites Wholly Developed	Sites Partly Developed	Sites Remaining	Dwellings Completed	Dwellings To Be Built	Sites Removed
Balfroun	1	0	1	0	81	7	0
Bannockburn	3	3	0	0	74	0	0
Bridge of Allan	3	2	0	0	23	0	1
Buchlyvie	0	0	0	0	0	0	0
Cambusbarron	4	3	1	0	227	37	0
Cowie	4	3	0	1	203	6	0
Doune & Deanston	3	1	0	2	10	113	0
Dunblane	8	8	0	0	496	0	0
Fallin & Throsk	4	3	0	1	255	42	0
Fintry	1	1	0	0	19	0	0
Gargunnock	1	1	0	0	19	0	0
Kippen	3	3	0	0	95	0	0
Plean	2	1	1	0	147	167	0
Stirling	14	12	1	0	781	3	1
Strathblane	2	2	0	0	38	0	0
Thornhill	4	2	0	2	0	29	0
Total	57	45	4	6	2468	404	2

Source: Housing Land Database 2010

Appendix Table 3: Alterations 1A and 2 - Town and Village Housing Proposals

Progress at 30/6/2010							
	Sites Carried Forward	No of New Sites	New Sites Wholly Developed	New Sites Partly Developed	New Sites Remaining	Dwellings Completed on new sites	Dwellings To Be Built on new sites
Alt 1A							
Balfron	1	3	1	0	2	27	70
Bannockburn	0	1	1	0	0	73	0
Bridge of Allan	0	0	0	0	0	0	0
Buchlyvie	0	1	1	0	0	26	0
Cambusbarron	1	1	0	1	0	80	43
Cowie	1	1	1	0	0	110	0
Doune & Deanston	2	1	0	0	1	0	99
Dunblane	0	1	0	0	1	0	60
Fallin & Throsk	2	0	0	0	0	0	0
Fintry	0	0	0	0	0	0	0
Gargunnoch	0	0	0	0	0	0	0
Kippen	0	0	0	0	0	0	0
Plean	2	1	0	0	1	0	15
Stirling	0	6	0	1	5	91	572
Strathblane	0	0	0	0	0	0	0
Thornhill	2	0	0	0	0	0	0
TOTAL	11	16	4	2	10	407	859
Alt 2							
Durieshill	0	1	0	0	1	0	2500

Source: Housing Land Database 2010

**Appendix Table 4:
LDP Area: Proposals for Affordable Housing from July 2010**

	Proposed Units on Sites which are:			TOTAL
	Under Construction	With Consent	Potential	
Balfron	0	0	16	16
Bannockburn	4	0	0	4
Bridge of Allan	0	0	8	8
Cambusbarron	0	12	0	12
Cowie	0	0	6	6
Deanston	14	0	0	14
Doune	0	53	0	53
Dunblane	0	0	29	29
Durieshill	0	0	625	625
Fallin & Throsk	42	0	0	42
Kippen	18	0	0	18
Plean	0	29	0	29
Rural Area	0	0	125	125
Stirling	29	68	361	458
Thornhill	0	0	23	23
TOTAL	107	162	1193	1462

Source: 2010 Housing Land Audit

Appendix Table 5: Stirling City Centre - Number of Units by Business Type

	Convenience	Comparison	Service	Vacant	Total
1995	25	185	154	34	398
2001	30	195	167	40	432
2007	28	178	179	37	422
2008	25	177	184	38	424
2009	25	170	188	44	427
2010	25	171	189	42	427

Source: Retail Monitoring Report 2010

Appendix Table 6: Stirling City Centre - Floorspace by Business Type

	Convenience	Comparison	Service	Vacant	Total
1995	3086	58817	35623	4175	101701
2001	4098	69432	37481	6025	117036
2007	3177	80381	35884	5380	124822
2008	2919	80058	39093	6287	128357
2009	2946	75559	40714	10344	129563
2010	2971	76424	41125	8836	129356

Source: Retail Monitoring Report 2010

Appendix Table 7: Transport Projects implemented since the Local Transport Strategy and City Transport Strategy were produced

Theme	Measure
Parking	Implementation of parking controls at Dunblane
	Controlled parking zone (CPZ) extended within the city centre
	Review of city centre controlled parking zone
	Dunblane station car park improvements
	Killin car park and bus terminus
Safety and traffic calming	Various 20mph/SRS schemes put in around schools
	B8051 Dumbarton Rd traffic management measures
	Central Scotland road safety camera partnership
	Road safety improvement programme
Public transport	Opening and expansion of Castlevie Park & Ride, to include the Hospital
	Opening of the Stirling – Alloa railway line
	Introduction of Demand Responsive Transport services in rural & NW Stirling
	Maintaining Stirling Bus Station
Active travel	Expansion of cycle parking facilities at Dunblane. Bridge of Allan and Stirling train stations
	Forthside/Station Square footbridge
	Forthside Park & Walk
	National Cycle Network improvements
	Linden Avenue Park & Walk
Travel awareness & information	Various measures implemented as part of the Council's travel plan.
	Promotion of liftshare scheme
Road network	Junction improvements at Kings Knot roundabout A11
	B8051 Snowdon Pl/Victoria Pl/Queens Rd traffic management measures
	Stirling western access road (Drip Road/Back O' Hill Road)
	A84 Drip Rd – A9 Customs roundabout capacity improvements
	Albert Place traffic management measures
	A91/B998 Logie roundabout
	Clackmannanshire Bridge River Forth crossing
	Victoria Place and Queen Street traffic calming

APPENDIX 2: SUPPORTING DOCUMENTS

- Structure Plan
- www.stirling.gov.uk/index/services/planning/developmentplan/structureplan

- Local Plan
- www.stirling.gov.uk/index/services/planning/developmentplan/localplan

- State of the Environment Report
- www.stirling.gov.uk/localdevplan/

- Business Space Strategy and Appraisal: Stirling Council Area
- www.stirling.gov.uk/strategies

- 2010 Housing Land Audit
- www.stirling.gov.uk/index/services/planning/hla

- 2010 Retail Monitoring Report
- www.stirling.gov.uk/retail_report_2010.pdf

- Local Transport Strategy
- www.stirling.gov.uk/stirling_local_transport_strategy.pdf