

Scottish Settlements: Urban And Rural Areas In Scotland

Introduction

1. Questions such as:

- how many people live in Bathgate?;
- is Perth bigger than Inverness or Stirling?; and
- what parts of Scotland are rural?

are frequently asked of GROS staff.

2. Until now, such questions were answered by reference to the previous 10-yearly Census of Population. For the 1991 Census, GROS published a volume *Key Statistics for Localities in Scotland* (ISBN 0-11-495736-3) and also made available more detailed statistics for each 'locality' in the form of Small Area Statistics.
3. These statistics have been used in the calculations of grants for councils and to help target policies and initiatives aimed at particular spatial areas, e.g. the Village Shops Rate Relief Scheme. There is now the prospect of legislation on land reform that will require clear and unambiguous definitions of rural Scotland.
4. To bring 1991 localities up to date, GROS has just produced a definition of 'settlements' which is based on the density of addresses calculated for each of the 138 thousand postcodes in Scotland. A settlement is generally equivalent to a group of neighbouring localities. Rural Scotland may be defined in terms of these settlements as, for example, all land outside settlements above a given size.

Background

5. In the years between successive Censuses, GROS maintains data on unit postcodes including a boundary enclosing all of the addresses within the postcode. Since the unit postcode contains an average of around 15 addresses, it is considered to be a sufficiently precise means of locating births and other vital events and of carrying out the geographic planning of Censuses. The postcode can also be used as a building brick in the definition of urban areas. Accordingly, GROS have produced a grouping into 'settlements' (as mentioned in paragraph 4 above) of unit postcodes as existing at January 2000. The methodology will be further developed and the grouping repeated for the postcodes in existence at January 2001. The boundaries of this second (2001) set of settlements will be among those used to define the 'output areas' for the main results of the 2001 Census.
6. More information is given in technical annexes about:
 - the GROS postcode database and how it is used for the Census (Annex A);
 - previous definitions by GROS of urban and rural Scotland (Annex B); and
 - the methodology used to define settlements (Annex C).

The main paper and the annexes have each been written as a free-standing document, so there is necessarily some repetition.

Results

Settlements in 2000

7. The attached set of maps shows the results of this year's exercise. Larger scale versions of the maps are available from the Scottish Executive Geographic Information Service (contact details in paragraph 21).
8. Of the estimated population of 5,119,200 in Scotland at mid-1999, some 4,648,010 (90.8%) were assigned to 514 settlements covering 2.2% of the land surface.
9. For Scotland as a whole there were 0.66 persons per hectare. This density averaged 27.16 in the settlements and 0.06 outside.
10. The largest settlement was Glasgow, which spread into 7 council areas: East Dunbartonshire, East Renfrewshire, Glasgow, North Lanarkshire, South Lanarkshire, Renfrewshire and West Dunbartonshire. The Glasgow settlement contained a population of around 1,090,530, some 21% of the population of Scotland.
11. There were 4 other settlements that contained more than 100,000 population each. These 4 settlements along with the Glasgow settlement contained some two-fifths of the population of Scotland. Table 1 shows the number of settlements by settlement size and the proportion of the Scottish population living in each size band. Also shown is that, in general, the density of population increases with size of settlement.

Table 1 Settlements by population band

Population	Number of Settlements	Percentage of population of Scotland	Persons per hectare
1,000,000+	1	21.3	38.1
100,000-999,990	4	18.4	33.8
10,000-99,990	51	29.4	28.8
1,000-9,990	311	19.6	20.0
500-990	147	2.1	8.7
Rural remainder	-	9.2	0.1

12. The council areas with proportionally the largest urban population were Glasgow City, the City of Edinburgh, and Dundee City with over 99% of the population in settlements. Others with at least 98% of the population in settlements were Aberdeen City, East Renfrewshire, Renfrewshire and West Dunbartonshire. Council areas with proportionally the least population in settlements were the three island areas of Eilean Siar, Orkney and Shetland with 54% or less. Mainland CAs with fewer than 70% of their population in settlements were Aberdeenshire, Argyll & Bute, Dumfries & Galloway and Highland. The first column of Table 2 shows details.
13. It should be noted that the criteria used to define an 'urban' postcode – a preliminary stage in defining settlements – varied for some council areas. This was in order to

provide some continuity with the exercise to define 'localities' for the 1991 Census. See paragraphs 8 and 9 of Annex B.

14. As might be expected, the higher the proportion of the population in settlements in a council area, the more densely populated it is. However, the relationship is far from linear even when plotted using a logarithmic scale (see Chart 1).
15. This can be explained more clearly from Chart 2, which shows urban density by proportion of the population in settlements. While the chart does appear to show a linear relationship it is not the one that we would expect. Ideally the line should be horizontal, indicating that all urban areas have roughly the same population per hectare.
16. Table 2 shows this variation in the population density within settlements in more detail. This density was particularly low in the island areas of Eilean Siar and Shetland – no doubt reflecting the low density thresholds used to identify urban postcodes in these areas. (The setting of thresholds will need to be re-examined with related factors in any future exercise – see paragraph 18 of Annex C.) The mainland council areas of Highland and Argyll & Bute also had relatively low population densities within settlements. These four council areas are shown in Chart 2.

Table 2 Council Area: % population in settlements, population density

Council Area	Percentage population within settlements, 2000	Persons per hectare	Persons per hectare within settlements
Scotland	90.8	0.66	27.16
Aberdeen City	98.3	11.45	31.13
Aberdeenshire	70.0	0.36	24.47
Angus	82.9	0.50	27.60
Argyll & Bute	67.8	0.13	15.98
Clackmannanshire	96.0	3.05	20.86
Dumfries & Galloway	69.6	0.23	21.74
Dundee City	99.7	24.68	33.84
East Ayrshire	93.1	0.96	33.06
East Dunbartonshire	97.3	6.34	35.45
East Lothian	89.6	1.33	31.67
East Renfrewshire	98.0	5.13	35.02
Edinburgh, City of	99.4	17.17	38.01
Eilean Siar	47.8	0.09	1.60
Falkirk	96.2	4.86	27.89
Fife	93.9	2.63	25.60
Glasgow City	99.8	34.95	42.22
Highland	66.5	0.08	14.17
Inverclyde	97.6	5.26	34.88
Midlothian	92.8	2.30	31.58
Moray	79.7	0.38	24.64
North Ayrshire	94.3	1.59	29.33
North Lanarkshire	97.4	6.96	30.67
Orkney Islands	40.7	0.20	21.22
Perth & Kinross	78.3	0.25	21.67
Renfrewshire	98.2	6.81	30.15
Scottish Borders	74.7	0.22	21.27
Shetland Islands	54.0	0.16	2.98
South Ayrshire	92.1	0.93	27.49
South Lanarkshire	94.8	1.74	31.64
Stirling	87.6	0.39	23.06
West Dunbartonshire	98.8	5.96	31.32
West Lothian	94.9	3.61	26.86

Chart 1: Council areas - density by % urban

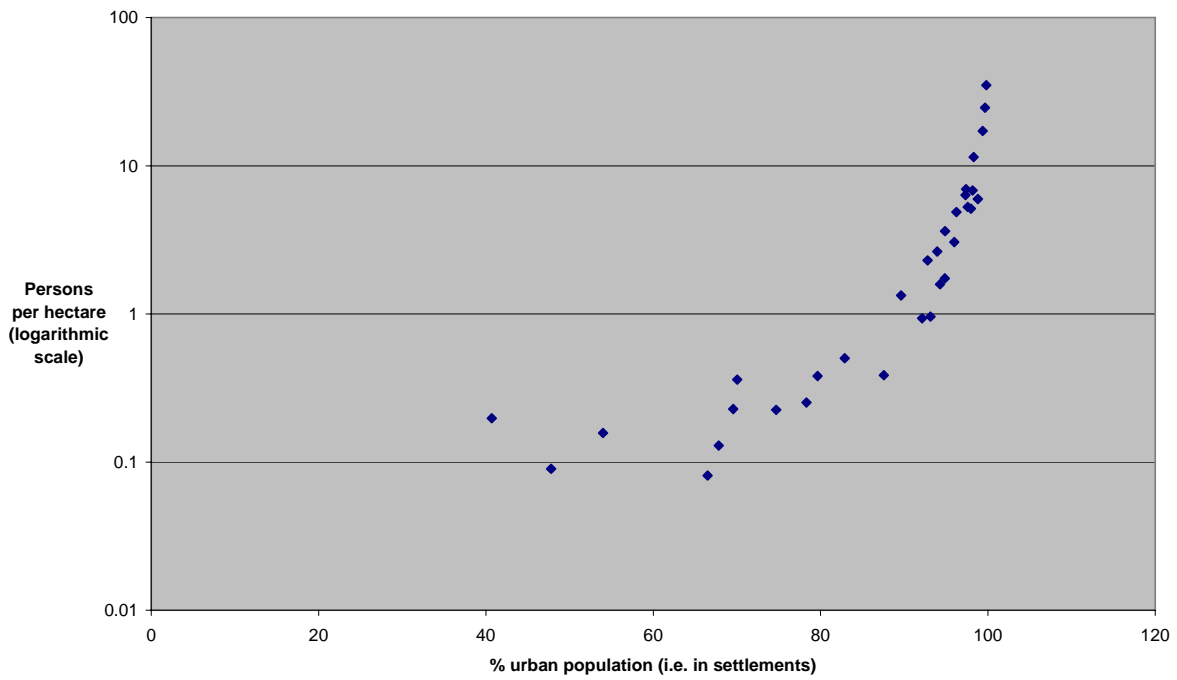
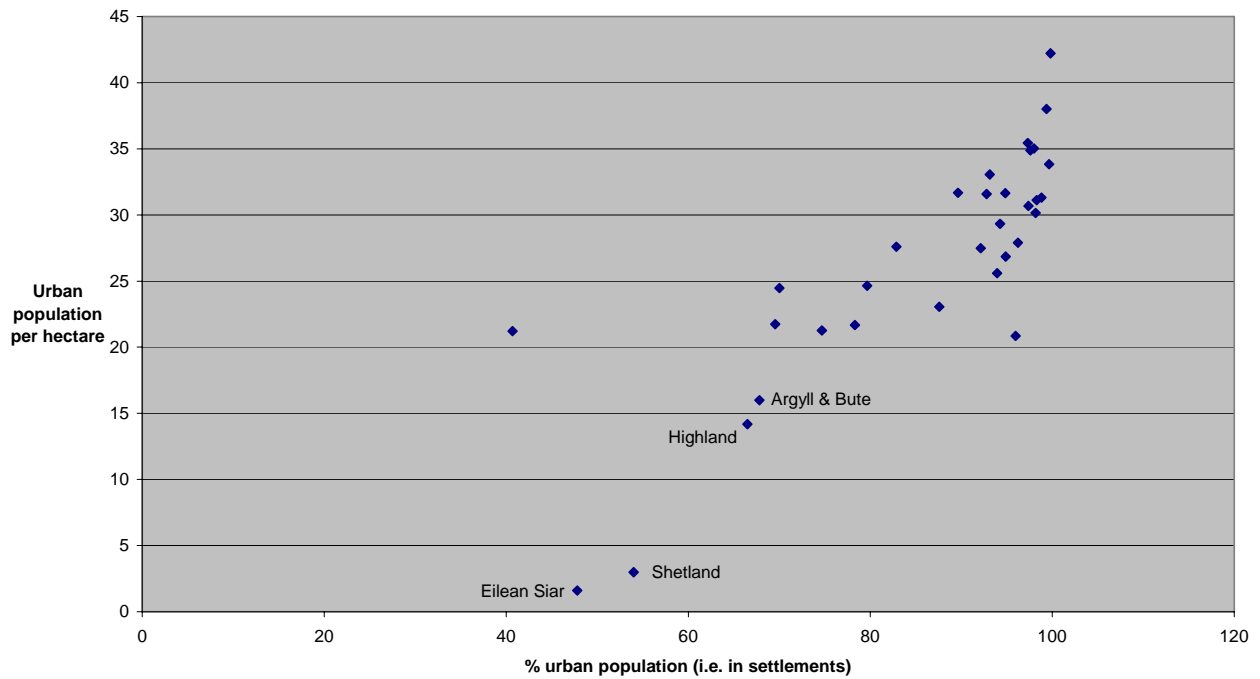


Chart 2: Council areas - urban density by % urban



Comparison with 1991 localities

17. Table 3 shows that the population in settlements in Scotland in 2000 was 0.46 percent higher than in 1991 localities. This net gain consists of:

- population in a 2000 settlement not in a 1991 locality (1.72% of the 1999 population living within the areas of 1991 localities) and
- population in a 1991 locality not in a 2000 settlement (1.26% of the 1999 population living within the areas of 1991 localities).

The net gain was highest in West Lothian with a figure of over 5 per cent. North Ayrshire, East Lothian, Perth & Kinross and Aberdeen City showed increases of between 2 and 3 per cent. At the other end of the scale were the three island areas and the two mainland areas of Highland and Argyll & Bute with net losses ranging from 3 to over 8 per cent. Council areas that had standard thresholds¹ and showed the greatest net losses were East Ayrshire (-1.1%) and Falkirk (-0.8%).

¹ See paragraphs 8 and 9 of Annex C.

Table 3 Percentage of (1999) population living in area of 1991 localities

Council Area	Percentage		
	Gains: In settlements but not in 1991 localities	Losses: Not in settlements but in 1991 localities	Net gain
Scotland	1.72	-1.26	0.46
Aberdeen City	2.67	-0.55	2.12
Aberdeenshire	3.78	-2.51	1.26
Angus	1.28	-0.70	0.57
Argyll & Bute	2.69	-6.09	-3.40
Clackmannanshire	0.55	-1.23	-0.68
Dumfries & Galloway	2.34	-2.31	0.04
Dundee City	0.56	-0.16	0.40
East Ayrshire	0.60	-1.70	-1.10
East Dunbartonshire	0.66	-1.24	-0.58
East Lothian	4.15	-1.42	2.73
East Renfrewshire	2.48	-0.75	1.73
Edinburgh, City of	0.15	-0.23	-0.08
Eilean Siar	3.50	-11.53	-8.03
Falkirk	0.61	-1.38	-0.77
Fife	1.95	-0.89	1.06
Glasgow City	0.00	-0.18	-0.18
Highland	2.91	-6.51	-3.61
Inverclyde	0.81	-0.71	0.09
Midlothian	2.24	-1.86	0.38
Moray	1.94	-3.31	-1.37
North Ayrshire	3.72	-0.96	2.76
North Lanarkshire	2.91	-1.08	1.83
Orkney Islands	1.46	-6.06	-4.60
Perth & Kinross	5.00	-2.70	2.30
Renfrewshire	0.48	-0.85	-0.37
Scottish Borders	1.40	-1.01	0.39
Shetland Islands	2.66	-10.82	-8.16
South Ayrshire	1.88	-1.22	0.65
South Lanarkshire	1.31	-0.65	0.66
Stirling	2.81	-1.76	1.05
West Dunbartonshire	0.16	-0.26	-0.11
West Lothian	6.77	-1.38	5.39

18. The 2000 exercise identified 18 settlements that were 'new', that is, were not recognised as localities in 1991. The largest of these new settlements, Blackwood (Cumbernauld), contained 1470 persons. The exercise also failed to create a settlement in any part of some 29 of the 1991 localities. Seventeen of these had 1999 populations of over 500, therefore meeting the population threshold, so were 'lost' because not all of the postcodes within them were above the density thresholds.

Individual settlements

19. Settlements are listed in Tables 4 and 5 in alphabetical order and in descending order of size respectively.

Further Work

20. As stated above (paragraph 5), GROS intends to identify and, where appropriate, implement improvements in the methodology used. Possible improvements are listed under Future Work in Annex C. GROS would be grateful for any other suggestions.

Contact details

21. Readers may also have enquiries about obtaining further copies of this paper or larger scale maps. Contact details are given below:

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Use of Census data by Scottish Executive

General – enquirers should quote the relevant policy area

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You can visit the General Register Office for Scotland website at **www.gro-scotland.gov.uk**

Table 4 Settlements in alphabetical order

Settlement	Council Area	Estimated population*	Settlement	Council Area	Estimated population*
Aberchirder	Aberdeenshire	1,200	Blackridge	West Lothian	1,540
Aberdeen	Aberdeen City	199,790	Blackwood (Cumbernauld)	North Lanarkshire	1,470
Aberdour	Fife	1,750	Blairgowrie	Perth & Kinross	8,350
Aberfeldy	Perth & Kinross	1,900	Blairhall	Fife	660
Aberfoyle	Stirling	660	Blantyre Hamilton	South Lanarkshire	68,410
Aberlady	East Lothian	900	Boat of Garten	Highland	520
Aberlour	Moray	790	Boddam	Aberdeenshire	1,410
Abernethy	Perth & Kinross	920	Boness	Falkirk	14,040
Aboyne	Aberdeenshire	2,270	Bonnybridge	Falkirk	18,060
Airth	Falkirk	1,210	Bowmore	Argyll & Bute	870
Alford	Aberdeenshire	2,120	Braco	Perth & Kinross	530
Allanton	North Lanarkshire	1,210	Brae	Shetland Islands	650
Alloa	-	29,760	Brechin	Angus	8,410
	Clackmannanshire	27,010	Bridge of Earn	Perth & Kinross	2,230
	Stirling	2,750	Bridge of Weir	Renfrewshire	4,200
Almondbank	Perth & Kinross	620	Bridgend	West Lothian	780
Alness	Highland	4,790	Broadford	Highland	530
Alva	Clackmannanshire	5,250	Brodick	North Ayrshire	720
Alyth	Perth & Kinross	2,380	Brora	Highland	1,480
Annan	Dumfries & Galloway	8,570	Broxburn	West Lothian	13,490
Annbank	South Ayrshire	890	Buchlyvie	Stirling	520
Anstruther	Fife	3,590	Buckhaven	Fife	26,860
Arbroath	Angus	24,290	Buckie	Moray	8,100
Ardersier	Highland	1,020	Burghead	Moray	1,560
Ardrishaig	Argyll & Bute	1,280	Burntisland	Fife	6,180
Ardrrossan Settlement	North Ayrshire	33,210	Burrelton	Perth & Kinross	610
Armadales	West Lothian	9,230	Cairnbulg Inverallochy	Aberdeenshire	1,240
Auchinleck	East Ayrshire	3,890	Cairneyhill	Fife	2,280
Auchterarder	Perth & Kinross	3,860	Caldercruix	North Lanarkshire	2,010
Auchtermuchty	Fife	2,040	California	Falkirk	600
Aviemore	Highland	3,000	Callander	Stirling	2,930
Avonch	Highland	930	Campbeltown	Argyll & Bute	5,800
Avonbridge	Falkirk	630	Cardenden	Fife	5,000
Ayr Prestwick	South Ayrshire	64,220	Cardross	Argyll & Bute	1,680
Ayton	Scottish Borders	520	Cargenbridge	Dumfries & Galloway	530
Baile a' Mhainich (Balivanich)	Eilean Siar	750	Carluke	South Lanarkshire	13,220
Balfarg (Glenrothes)	Fife	1,550	Carmunnoch	Glasgow City	1,250
Balfron	Stirling	1,590	Carnoustie	Angus	10,110
Balintore	Highland	1,150	Carnwath	South Lanarkshire	1,520
Ballachulish	Highland	650	Carradale	Argyll & Bute	500
Ballater	Aberdeenshire	1,800	Carstairs	South Lanarkshire	730
Ballingry	Fife	5,890	Carstairs Junction	South Lanarkshire	900
Balloch	Highland	6,790	Castle Douglas	Dumfries & Galloway	4,070
Balmedie	Aberdeenshire	1,470	Castletown	Highland	910
Balmullo	Fife	1,050	Catrine	East Ayrshire	2,260
Banchory	Aberdeenshire	5,980	Ceres	Fife	960
Banff	Aberdeenshire	4,640	Chapelton	South Lanarkshire	700
Bankfoot	Perth & Kinross	1,150	Chimside	Scottish Borders	1,140
Banknock Haggs	Falkirk	2,890	Chryston	North Lanarkshire	3,910
Bathgate	West Lothian	15,710	Clackmannan	Clackmannanshire	3,420
Beaully	Highland	1,230	Cleland	North Lanarkshire	2,660
Beith	North Ayrshire	6,200	Coalburn	South Lanarkshire	1,210
Bellsbank	East Ayrshire	1,690	Coaltown of Wemyss	Fife	630
Biggar	South Lanarkshire	2,560	Cockenzie	East Lothian	5,290
Bilston	Midlothian	2,250	Col (Coll)	Eilean Siar	1,490
Birkhill Muirhead	Angus	1,860	Coldingham	Scottish Borders	600
Bishopton	Renfrewshire	4,170	Coldstream	Scottish Borders	1,930
Blackburn (Aberdeenshire)	Aberdeenshire	1,150	Comrie	Perth & Kinross	2,110
Blackburn (West Lothian)	West Lothian	5,300	Cononbridge	Highland	2,260
Blackford	Perth & Kinross	520	Coupar Angus	Perth & Kinross	2,290

Settlement	Council Area	Estimated population*	Settlement	Council Area	Estimated population*
Cowdenbeath	Fife	19,320	Dunoon	Argyll & Bute	9,650
Cowie	Stirling	2,260	Duns	Scottish Borders	2,590
Coylton	South Ayrshire	2,320	Eaglesfield	Dumfries & Galloway	590
Crail	Fife	2,020	Eaglesham	East Renfrewshire	3,550
Creetown	Dumfries & Galloway	730	Earlston	Scottish Borders	1,610
Crieff	Perth & Kinross	6,580	East Kilbride	South Lanarkshire	74,770
Crimond	Aberdeenshire	810	East Linton	East Lothian	1,750
Cromarty	Highland	790	East Wemyss	Fife	2,080
Crossford (Fife)	Fife	2,300	East Whitburn	West Lothian	910
Crossford (South Lanarkshire)	South Lanarkshire	690	Eastfield (Cumbernauld)	North Lanarkshire	5,920
Crossgates	Fife	1,770	Eastriggs	Dumfries & Galloway	1,630
Crosshill	South Ayrshire	500	Ecclefechan	Dumfries & Galloway	780
Crosshouse	East Ayrshire	2,660	Edinburgh	-	456,320
Croy	North Lanarkshire	750		Edinburgh, City of	436,050
Cruden Bay	Aberdeenshire	1,630		East Lothian	20,270
Cullen	Moray	1,590	Edzell	Angus	870
Cumbernauld	North Lanarkshire	43,710	Elgin	Moray	20,820
Cuminestown	Aberdeenshire	510	Elie	Fife	1,730
Cumnock	East Ayrshire	9,380	Ellon	Aberdeenshire	8,630
Cunningsburgh	Shetland Islands	540	Elphinstone	East Lothian	520
Cupar	Fife	8,800	Errol	Perth & Kinross	1,140
Dailly	South Ayrshire	860	Erskine	Renfrewshire	14,820
Dalbeattie	Dumfries & Galloway	4,510	Evanton	Highland	750
Dalkeith	Midlothian	38,750	Eyemouth	Scottish Borders	3,300
Dalmellington Burnton	East Ayrshire	1,590	Fairlie	North Ayrshire	1,450
Dalry	North Ayrshire	5,530	Falkirk	Falkirk	94,130
Dalrymple	East Ayrshire	1,260	Falkland	Fife	1,110
Danderhall	-	2,870	Fauldhouse	West Lothian	4,650
	Edinburgh, City of	0	Fenwick	East Ayrshire	810
	Midlothian	2,860	Findhorn	Moray	820
Darvel	East Ayrshire	3,590	Findochty	Moray	1,160
Dechmont	West Lothian	790	Firth Mossbank	Shetland Islands	570
Denholm	Scottish Borders	630	Fochabers	Moray	1,510
Dingwall	Highland	4,750	Forfar	Angus	14,090
Dirleton	East Lothian	500	Forres	Moray	9,090
Dollar	Clackmannanshire	2,620	Fort Augustus	Highland	600
Dornoch	Highland	1,330	Fort William	Highland	9,320
Douglas	South Lanarkshire	1,790	Forth	South Lanarkshire	2,660
Doune	Stirling	1,630	Fortrose	Highland	1,190
Drongan	East Ayrshire	2,900	Fraserburgh	Aberdeenshire	13,650
Drumnadrochit	Highland	740	Freuchie	Fife	1,130
Drumoak	Aberdeenshire	700	Friockheim	Angus	850
Drymen	Stirling	930	Fyvie	Aberdeenshire	530
Dufftown	Moray	1,540	Galashiels	Scottish Borders	14,990
Dumbarton Settlement	West Dunbartonshire	45,900	Galston Newmilns	East Ayrshire	8,640
Dumfries	Dumfries & Galloway	31,790	Gardenstown	Aberdeenshire	980
Dunbar	East Lothian	6,190	Garelochhead	Argyll & Bute	1,130
Dunbeg	Argyll & Bute	660	Gargunnoch	Stirling	690
Dunblane	Stirling	7,330	Gartcosh	North Lanarkshire	1,030
Dundee	-	152,930	Gatehouse of Fleet	Dumfries & Galloway	1,080
	Dundee	143,930	Gauldry	Fife	690
	Angus	7,220	Gifford	East Lothian	720
	Perth & Kinross	1,770	Girvan	South Ayrshire	7,630
Dundonald	-	2,350			
	North Ayrshire	170			
	South Ayrshire	2,190			
Dunfermline	Fife	39,320			
Dunkeld Birnam	Perth & Kinross	1,210			
Dunlop	East Ayrshire	860			
Dunning	Perth & Kinross	960			

Table 4 cont'd

Settlement	Council Area	Estimated population*	Settlement	Council Area	Estimated population*
Glasgow	-	1,090,530	Kemnay	Aberdeenshire	3,220
	East Dunbartonshire	64,470	Kennoway	Fife	5,930
	West Dunbartonshire	47,950	Kilbirnie	North Ayrshire	7,700
	Glasgow City	608,610	Kilcreggan	Argyll & Bute	1,220
	East Renfrewshire	77,090	Killearn	Stirling	1,710
	North Lanarkshire	92,730	Killin	Stirling	790
	South Lanarkshire	58,530	Kilmacolm	Inverclyde	4,650
	Renfrewshire	141,140	Kilmarnock	East Ayrshire	45,110
Glassford	South Lanarkshire	510	Kilmaurs	East Ayrshire	2,740
Glenboig	North Lanarkshire	1,520	Kilsyth	North Lanarkshire	10,370
Glenfarg	Perth & Kinross	520	Kilwinning	North Ayrshire	15,740
Glenluce	Dumfries & Galloway	640	Kincardine	Fife	3,150
Glenmavis	North Lanarkshire	2,130	Kinghorn	Fife	3,140
Glenrothes	Fife	42,130	Kinglassie	Fife	1,340
Golspie	Highland	1,460	Kingseat	Fife	510
Gorebridge	Midlothian	6,100	Kingskettle	Fife	970
Gourdon	Aberdeenshire	700	Kingswells	Aberdeen City	2,930
Grantown-on-Spey	Highland	2,380	Kingussie	Highland	1,440
Greenlaw	Scottish Borders	610	Kinlochleven	Highland	1,110
Greenock	Inverclyde	74,860	Kinloss	Moray	1,740
Gretna	Dumfries & Galloway	2,690	Kinross	Perth & Kinross	4,640
Gullane	East Lothian	2,540	Kintore	Aberdeenshire	1,690
Haddington	East Lothian	8,970	Kippen	Stirling	910
Halbeath (Dunfermline)	Fife	620	Kirkcaldy	Fife	49,220
Halkirk	Highland	900	Kirkconnel	Dumfries & Galloway	2,160
Hallglen (Falkirk)	Falkirk	3,250	Kirkcudbright	Dumfries & Galloway	3,780
Hamnavoe	Shetland Islands	570	Kirkfieldbank	South Lanarkshire	1,010
Harthill	-	3,850	Kirkintilloch Lenzie	-	32,460
	North Lanarkshire	3,070		North Lanarkshire	800
	West Lothian	780		East Dunbartonshire	31,650
Hatton of Cruden	Aberdeenshire	800	Kirkliston	Edinburgh, City of	2,640
Hawick	Scottish Borders	15,860	Kirkmuirhill Blackwood	South Lanarkshire	3,700
Hawkhead (Glasgow)	Renfrewshire	800	Kirknewton	West Lothian	1,640
Helensburgh	Argyll & Bute	15,160	Kirkton of Largo	Fife	500
Helmsdale	Highland	650	Kirkwall	Orkney Islands	6,130
High Valleyfield	Fife	2,960	Kirriemuir	Angus	6,220
Hillside	Angus	910	Kyle of Lochalsh	Highland	730
Hopeman	Moray	1,460	Ladybank	Fife	1,520
Houston	Renfrewshire	5,730	Lamlash	North Ayrshire	1,380
Huntly	Aberdeenshire	5,350	Lanark	South Lanarkshire	9,330
Hurford Crookedholm	East Ayrshire	4,990	Langbank	Renfrewshire	780
Inchture	Perth & Kinross	700	Langholm	Dumfries & Galloway	2,690
Innellan	Argyll & Bute	1,090	Largs	North Ayrshire	12,120
Innerleithen	Scottish Borders	2,640	Larkhall	South Lanarkshire	17,260
Insch	Aberdeenshire	1,650	Lauder	Scottish Borders	1,070
Inveraray	Argyll & Bute	580	Laurencekirk	Aberdeenshire	1,960
Inverbervie	Aberdeenshire	2,060	Law	South Lanarkshire	2,880
Invergordon	Highland	3,770	Lennoxton	East Dunbartonshire	3,820
Inverkeithing Dalgety Bay	Fife	27,220	Lerwick	Shetland Islands	7,270
Inverkip	Inverclyde	1,530	Lesmahagow	South Lanarkshire	3,600
Inverness	Highland	44,180	Letham	Angus	1,520
Inverurie	Aberdeenshire	11,550	Leuchars	Fife	2,910
Irvine	North Ayrshire	38,110	Lhanbryde	Moray	1,840
Jedburgh	Scottish Borders	4,070	Limekilns	Fife	1,520
Johnshaven	Aberdeenshire	770	Linlithgow	West Lothian	12,450
Keith	Moray	4,700	Livingston	West Lothian	54,760
Kelso	Scottish Borders	5,280	Loanhead	Midlothian	6,900
Kelty	-	5,850	Loans	South Ayrshire	740
	Perth & Kinross	20	Locharbriggs	Dumfries & Galloway	5,460
	Fife	5,830	Lochgilphead	Argyll & Bute	2,140

Settlement	Council Area	Estimated population*	Settlement	Council Area	Estimated population*
Lochmaben	Dumfries & Galloway	1,880	North Berwick	East Lothian	6,490
Lochwinnoch	Renfrewshire	2,360	North Kessock	Highland	870
Lockerbie	Dumfries & Galloway	4,090	Oakley	Fife	3,750
Logan	East Ayrshire	1,330	Oban	Argyll & Bute	8,360
Longforgan	Perth & Kinross	610	Ochiltree	East Ayrshire	750
Longniddry	East Lothian	2,500	Oldmeldrum	Aberdeenshire	1,970
Longridge	West Lothian	620	Ormiston	East Lothian	1,960
Longside	Aberdeenshire	750	Overtown	North Lanarkshire	4,390
Lossiemouth	Moray	6,800	Pathhead	Midlothian	990
Luncarty	Perth & Kinross	1,220	Patna	East Ayrshire	2,240
Lundin Links	Fife	2,500	Peebles	Scottish Borders	7,670
Macduff	Aberdeenshire	4,370	Pencaitland	East Lothian	1,370
Macmerry	East Lothian	1,140	Penicuik	Midlothian	14,800
Maidens	South Ayrshire	540	Perth	Perth & Kinross	44,520
Mallaig	Highland	730	Peterculter Milltimber	Aberdeen City	6,310
Mauchline	East Ayrshire	3,980	Peterhead	Aberdeenshire	19,220
Maud	Aberdeenshire	690	Pitlochry	Perth & Kinross	2,900
Maxwellheugh (Kelso)	Scottish Borders	900	Pitmedden	Aberdeenshire	970
Maybole	South Ayrshire	4,730	Pittenweem	Fife	1,900
Melrose	Scottish Borders	1,860	Plains	North Lanarkshire	2,270
Menstrie	Clackmannanshire	1,900	Plean	Stirling	1,650
Methven	Perth & Kinross	1,170	Polbeth	West Lothian	2,340
Millport	North Ayrshire	1,680	Port Bannatyne	Argyll & Bute	1,260
Milnathort	Perth & Kinross	1,670	Port Ellen	Argyll & Bute	870
Milton Kildary	Highland	600	Port William	Dumfries & Galloway	520
Milton of Campsie	East Dunbartonshire	3,860	Portgordon	Moray	830
Mintlaw	Aberdeenshire	2,630	Portknockie	Moray	1,290
Moffat	Dumfries & Galloway	2,340	Portlethen	Aberdeenshire	6,050
Monkton	South Ayrshire	640	Portpatrick	Dumfries & Galloway	750
Montrose	Angus	13,520	Portree	Highland	2,000
Moodiesburn	North Lanarkshire	6,320	Portsoy	Aberdeenshire	2,030
Mossblown	South Ayrshire	2,130	Potterton	Aberdeenshire	820
Mosstodloch	Moray	980	Prestonpans	East Lothian	7,210
Motherwell Settlement	-	135,050	Quarter	South Lanarkshire	580
	South Lanarkshire	11,360	Queensferry	Edinburgh, City of	7,910
	Glasgow City	480	Ratho	Edinburgh, City of	1,380
	North Lanarkshire	123,210	Ratho Station	Edinburgh, City of	930
Muir of Ord	Highland	1,700	Rigside	South Lanarkshire	920
Muirkirk	East Ayrshire	1,790	Rosehearty	Aberdeenshire	1,270
Muirton Gleneagles	Perth & Kinross	500	Rosemarkie	Highland	570
Muthill	Perth & Kinross	700	Roswell	Midlothian	1,210
Nairn	Highland	8,190	Roslin	Midlothian	1,930
Neilston	East Renfrewshire	5,080	Rosneath	Argyll & Bute	830
Netherburn	South Lanarkshire	620	Rothies	Moray	1,250
Nethy Bridge	Highland	700	Rothsay	Argyll & Bute	4,450
New Cumnock	East Ayrshire	3,720	St Andrews	Fife	13,370
New Deer	Aberdeenshire	600	St Boswells	Scottish Borders	1,140
New Pitsligo	Aberdeenshire	1,020	St Combs	Aberdeenshire	820
New Scone	Perth & Kinross	4,700	St Cyrus	Aberdeenshire	920
Newburgh (Aberdeenshire)	Aberdeenshire	1,130	St Johns Town of Dalry	Dumfries & Galloway	500
Newburgh (Fife)	Fife	2,010	St Madoes Glencarse	Perth & Kinross	580
Newcastleton	Scottish Borders	850	St Monance	Fife	1,700
Newmachar	Aberdeenshire	1,810	Saline	Fife	1,070
Newport-on-Tay	Fife	4,210	Salsburgh	North Lanarkshire	1,340
Newton Stewart	Dumfries & Galloway	3,740	Sandhaven	Aberdeenshire	790
Newtonhill	Aberdeenshire	2,530	Sandwick	Shetland Islands	790
Newtonmore	Highland	1,040	Sanquhar	Dumfries & Galloway	2,000
Newtown St Boswells	Scottish Borders	1,230	Scalloway	Shetland Islands	1140
Newtyle	Angus	660	Seafield	West Lothian	1220
Nis (Ness)	Eilean Siar	1,390	Selkirk	Scottish Borders	5,790

Table 4 cont'd

Settlement	Council Area	Estimated population*	Settlement	Council Area	Estimated population*
Shieldhill	Falkirk	2,210	Thornton	Fife	1,810
Shotts	North Lanarkshire	8,550	Thurso	Highland	7,880
Siabost (Shawbost)	Eilean Siar	760	Tighnabruaich	Argyll & Bute	610
Skelmorlie	-	1,810	Tillicoultry	Clackmannanshire	6,390
	North Ayrshire	1,770	Tobermory	Argyll & Bute	880
	Inverclyde	40	Torphichen	West Lothian	570
Slamannan	Falkirk	1,150	Torphins	Aberdeenshire	1,000
Springfield	Fife	920	Torrance	East Dunbartonshire	2,300
Springside	North Ayrshire	1,270	Townhill (Dunfermline)	Fife	1,320
Stanley	Perth & Kinross	1,370	Tranent	East Lothian	8,800
Steòrnabhagh (Stornoway)	Eilean Siar	8780	Troon	South Ayrshire	15,170
Stewarton	East Ayrshire	6,440	Turriff	Aberdeenshire	4,990
Stirling	Stirling	45,980	Twechar	East Dunbartonshire	1,620
Stonehaven	Aberdeenshire	9,860	Ullapool	Highland	1,370
Stonehouse	South Lanarkshire	5,010	Uplawmoor	East Renfrewshire	570
Stoneyburn Addiebrownhill	West Lothian	3,290	Walkerburn	Scottish Borders	800
Stow	Scottish Borders	540	Wallyford	East Lothian	2,130
Stranraer	Dumfries & Galloway	11,090	Waterfoot	-	1,210
Strathaven	South Lanarkshire	7,200		South Lanarkshire	0
Strathblane	Stirling	1860		East Renfrewshire	1,210
Strathkiness	Fife	640	Wellbank	Angus	500
Strathmiglo	Fife	870	Wemyss Bay	Inverclyde	2,080
Strathpeffer	Highland	830	West Barns	East Lothian	570
Strichen	Aberdeenshire	1060	West Calder	West Lothian	3,010
Stromness	Orkney Islands	1850	West Kilbride	North Ayrshire	4,380
Strone	Argyll & Bute	510	West Linton	Scottish Borders	1,170
Stuartfield	Aberdeenshire	670	Westhill	Aberdeenshire	8,060
Symbister	Shetland Islands	750	Whitburn	West Lothian	10,930
Symington	South Ayrshire	1010	Whitecraig	East Lothian	1,220
Tain	Highland	3460	Whitecross	Falkirk	760
Tarbert	Argyll & Bute	1350	Whitehills	Aberdeenshire	1,180
Tarbolton	South Ayrshire	1,710	Whithorn	Dumfries & Galloway	880
Tarland	Aberdeenshire	650	Wick	Highland	7,450
Tarves	Aberdeenshire	920	Wigtown	Dumfries & Galloway	1,010
Tayport	Fife	3,830	Winchburgh	West Lothian	2,780
Thornhill	Dumfries & Galloway	1600	Yetholm	Scottish Borders	690

* Rounded to nearest 10. Figures for settlements with portions in more than one council area may not sum exactly to the total shown.

- Total population for settlement.

Table 5 Settlements in descending order of size

Settlement	Estimated population*	Settlement	Estimated population*	Settlement	Estimated population*
Glasgow	1,090,530	Oban	8,360	Chryston	3,910
Edinburgh	456,320	Blairgowrie	8,350	Auchinleck	3,890
Aberdeen	199,790	Nairn	8,190	Auchterarder	3,860
Dundee	152,930	Buckie	8,100	Milton of Campsie	3,860
Motherwell Settlement	135,050	Westhill	8,060	Harthill	3,850
Falkirk	94,130	Queensferry	7,910	Tayport	3,830
Greenock	74,860	Thurso	7,880	Lennoxton	3,820
East Kilbride	74,770	Kilbirnie	7,700	Kirkcudbright	3,780
Blantyre Hamilton	68,410	Peebles	7,670	Invergordon	3,770
Ayr Prestwick	64,220	Girvan	7,630	Oakley	3,750
Livingston	54,760	Wick	7,450	Newton Stewart	3,740
Kirkcaldy	49,220	Dunblane	7,330	New Cumnock	3,720
Stirling	45,980	Lerwick	7,270	Kirkmuirhill Blackwood	3,700
Dumbarton Settlement	45,900	Prestonpans	7,210	Lesmahagow	3,600
Kilmarnock	45,110	Strathaven	7,200	Darvel	3,590
Perth	44,520	Loanhead	6,900	Anstruther	3,590
Inverness	44,180	Lossiemouth	6,800	Eaglesham	3,550
Cumbernauld	43,710	Balloch	6,790	Tain	3,460
Glenrothes	42,130	Crieff	6,580	Clackmannan	3,420
Dunfermline	39,320	North Berwick	6,490	Eyemouth	3,300
Dalkeith	38,750	Stewarton	6,440	Stoneyburn Addiebrownhill	3,290
Irvine	38,110	Tillicoultry	6,390	Hallglen (Falkirk)	3,250
Ardrrossan Settlement	33,210	Moodiesburn	6,320	Kemnay	3,220
Kirkintilloch Lenzie	32,460	Peterculter Milltimber	6,310	Kincardine	3,150
Dumfries	31,790	Kirriemuir	6,220	Kinghorn	3,140
Alloa	29,760	Beith	6,200	West Calder	3,010
Inverkeithing Dalgety Bay	27,220	Dunbar	6,190	Aviemore	3,000
Buckhaven	26,860	Burntisland	6,180	High Valleyfield	2,960
Arbroath	24,290	Kirkwall	6,130	Kingswells	2,930
Elgin	20,820	Gorebridge	6,100	Callander	2,930
Cowdenbeath	19,320	Portlethen	6,050	Leuchars	2,910
Peterhead	19,220	Banchory	5,980	Pitlochry	2,900
Bonnybridge	18,060	Kennoway	5,930	Drongan	2,900
Larkhall	17,260	Eastfield (Cumbernauld)	5,920	Banknock Hags	2,890
Hawick	15,860	Ballingry	5,890	Law	2,880
Kilwinning	15,740	Kelty	5,850	Danderhall	2,870
Bathgate	15,710	Campbeltown	5,800	Winchburgh	2,780
Troon	15,170	Selkirk	5,790	Kilmaurs	2,740
Helensburgh	15,160	Houston	5,730	Langholm	2,690
Galashiels	14,990	Dalry	5,530	Gretna	2,690
Erskine	14,820	Locharbriggs	5,460	Forth	2,660
Penicuik	14,800	Huntly	5,350	Cleland	2,660
Forfar	14,090	Blackburn (West Lothian)	5,300	Crosshouse	2,660
Boness	14,040	Cockenzie	5,290	Kirkliston	2,640
Fraserburgh	13,650	Kelso	5,280	Innerleithen	2,640
Montrose	13,520	Alva	5,250	Mintlaw	2,630
Broxburn	13,490	Neilston	5,080	Dollar	2,620
St Andrews	13,370	Stonehouse	5,010	Duns	2,590
Carlisle	13,220	Cardenden	5,000	Biggar	2,560
Linlithgow	12,450	Hurford Crookedholm	4,990	Gullane	2,540
Largs	12,120	Turriff	4,990	Newtonhill	2,530
Inverurie	11,550	Alness	4,790	Longniddy	2,500
Stranraer	11,090	Dingwall	4,750	Lundin Links	2,500
Whitburn	10,930	Maybole	4,730	Alyth	2,380
Kilsyth	10,370	Keith	4,700	Grantown-on-Spey	2,380
Carnoustie	10,110	New Scone	4,700	Lochwinnoch	2,360
Stonehaven	9,860	Kilmacollm	4,650	Dundonald	2,350
Dunoon	9,650	Fauldhouse	4,650	Moffat	2,340
Cumnock	9,380	Banff	4,640	Polbeth	2,340
Lanark	9,330	Kinross	4,640	Coylton	2,320
Fort William	9,320	Dalbeattie	4,510	Torrance	2,300
Armadale	9,230	Rothsay	4,450	Crossford (Fife)	2,300
Forres	9,090	Overtown	4,390	Coupar Angus	2,290
Haddington	8,970	West Kilbride	4,380	Cairneyhill	2,280
Tranent	8,800	Macduff	4,370	Aboyne	2,270
Cupar	8,800	Newport-on-Tay	4,210	Plains	2,270
Steòrnabhagh (Stornoway)	8,780	Bridge of Weir	4,200	Cowie	2,260
Galston Newmilns	8,640	Bishopton	4,170	Catrine	2,260
Ellon	8,630	Lockerbie	4,090	Cononbridge	2,260
Annan	8,570	Jedburgh	4,070	Bilston	2,250
Shotts	8,550	Castle Douglas	4,070	Patna	2,240
Brechin	8,410	Mauchline	3,980	Bridge of Earn	2,230

Settlement	Estimated population*	Settlement	Estimated population*	Settlement	Estimated population*
Shieldhill	2,210	Glenboig	1,520	Gartcosh	1,030
Kirkconnel	2,160	Letham	1,520	Ardersier	1,020
Lochgilphead	2,140	Fochabers	1,510	New Pitsligo	1,020
Mossblown	2,130	Col (Coll)	1,490	Wigtown	1,010
Wallyford	2,130	Brora	1,480	Kirkfieldbank	1,010
Glenmavis	2,130	Blackwood (Cumbernauld)	1,470	Symington	1,010
Alford	2,120	Balmedie	1,470	Torphins	1,000
Comrie	2,110	Hopeman	1,460	Pathhead	990
East Wemyss	2,080	Golspie	1,460	Gardenstown	980
Wemyss Bay	2,080	Fairlie	1,450	Mosstodloch	980
Inverbervie	2,060	Kingussie	1,440	Kingskettle	970
Auchtermuchty	2,040	Boddam	1,410	Pitmedden	970
Portsoy	2,030	Nis (Ness)	1,390	Ceres	960
Craik	2,020	Ratho	1,380	Dunning	960
Newburgh (Fife)	2,010	Lamlash	1,380	Ratho Station	930
Caldercruix	2,010	Pencaitland	1,370	Avoch	930
Sanquhar	2,000	Stanley	1,370	Drymen	930
Portree	2,000	Ullapool	1,370	Rigside	920
Oldmeldrum	1,970	Tarbert	1,350	Springfield	920
Laurencekirk	1,960	Kinglassie	1,340	St Cyrus	920
Ormiston	1,960	Salsburgh	1,340	Tarves	920
Coldstream	1,930	Dornoch	1,330	Abernethy	920
Roslin	1,930	Logan	1,330	Hillside	910
Aberfeldy	1,900	Townhill (Dunfermline)	1,320	Castletown	910
Menstrie	1,900	Portknockie	1,290	Kippen	910
Pittenweem	1,900	Ardrihaig	1,280	East Whitburn	910
Lochmaben	1,880	Rosehearty	1,270	Aberlady	900
Birkhill Muirhead	1,860	Springside	1,270	Carstairs Junction	900
Melrose	1,860	Dalrymple	1,260	Halkirk	900
Strathblane	1,860	Port Bannatyne	1,260	Maxwellheugh (Kelso)	900
Stromness	1,850	Carmunnock	1,250	Annbank	890
Lhanbryde	1,840	Roths	1,250	Tobermory	880
Newmachar	1,810	Cairnbulg Inverallochy	1,240	Whithorn	880
Thornton	1,810	Newtown St Boswells	1,230	Bowmore	870
Skelmorlie	1,810	Beauly	1,230	Strathmiglo	870
Ballater	1,800	Seafield	1,220	Port Ellen	870
Douglas	1,790	Whitecraig	1,220	North Kessock	870
Muirkirk	1,790	Kilcreggan	1,220	Edzell	870
Crossgates	1,770	Luncarty	1,220	Dailly	860
East Linton	1,750	Coalburn	1,210	Dunlop	860
Aberdour	1,750	Waterfoot	1,210	Friockheim	850
Kinloss	1,740	Allanton	1,210	Newcastleton	850
Elie	1,730	Rosewell	1,210	Rosneath	830
Killearn	1,710	Dunkeld Birnam	1,210	Strathpeffer	830
Tarbolton	1,710	Airth	1,210	Portgordon	830
Muir of Ord	1,700	Aberchirder	1,200	St Combs	820
St Monance	1,700	Fortrose	1,190	Potterton	820
Kintore	1,690	Whitehills	1,180	Findhorn	820
Bellsbank	1,690	Methven	1,170	Fenwick	810
Millport	1,680	West Linton	1,170	Crimond	810
Cardross	1,680	Findochty	1,160	Hatton of Cruden	800
Milnathort	1,670	Balintore	1,150	Hawkhead (Glasgow)	800
Plean	1,650	Blackburn (Aberdeenshire)	1,150	Walkerburn	800
Insch	1,650	Slamannan	1,150	Killin	790
Kirknewton	1,640	Bankfoot	1,150	Dechmont	790
Cruden Bay	1,630	St Boswells	1,140	Cromarty	790
Doune	1,630	Macmerry	1,140	Sandhaven	790
Eastriggs	1,630	Chirnside	1,140	Aberlour	790
Twechar	1,620	Scalloway	1,140	Sandwick	790
Earlston	1,610	Errol	1,140	Bridgend	780
Thornhill	1,600	Newburgh (Aberdeenshire)	1,130	Ecclefechan	780
Dalmellington Burnton	1,590	Garelochhead	1,130	Langbank	780
Cullen	1,590	Freuchie	1,130	Johnshaven	770
Balfroun	1,590	Falkland	1,110	Siabost (Shawbost)	760
Burghead	1,560	Kinlochleven	1,110	Whitecross	760
Balfarg (Glenrothes)	1,550	Innellan	1,090	Symbister	750
Blackridge	1,540	Gatehouse of Fleet	1,080	Evanton	750
Dufftown	1,540	Saline	1,070	Croy	750
Inverkip	1,530	Lauder	1,070	Portpatrick	750
Ladybank	1,520	Strichen	1,060	Longside	750
Limekilns	1,520	Balmullo	1,050	Ochiltree	750
Carnwath	1,520	Newtonmore	1,040	Baile a' Mhainich (Balivanich)	750

Table 5 cont'd

Settlement	Estimated population*	Settlement	Estimated population*	Settlement	Estimated population*
Drumnadrochit	740	Glenluce	640	Rosemarkie	570
Loans	740	Strathkiness	640	Stow	540
Kyle of Lochalsh	730	Monkton	640	Cunningsburgh	540
Mallaig	730	Avonbridge	630	Maidens	540
Creetown	730	Coaltown of Wemyss	630	Cargenbridge	530
Carstairs	730	Denholm	630	Fyvie	530
Brodick	720	Almondbank	620	Broadford	530
Gifford	720	Halbeath (Dunfermline)	620	Braco	530
Drumoak	700	Longridge	620	Boat of Garten	520
Gourdon	700	Netherburn	620	Elphinstone	520
Inchture	700	Burrelton	610	Blackford	520
Muthill	700	Tighnabraich	610	Ayton	520
Chapelton	700	Longforan	610	Port William	520
Nethy Bridge	700	Greenlaw	610	Buchlyvie	520
Gargunnoch	690	Coldingham	600	Glenfarg	520
Gauldry	690	New Deer	600	Cuminestown	510
Crossford (South Lanarkshire)	690	Milton Kildary	600	Glassford	510
Yetholm	690	Fort Augustus	600	Strone	510
Maud	690	California	600	Kingseat	510
Stuartfield	670	Eaglesfield	590	Carradale	500
Newtyle	660	St Madoes Glencarse	580	Kirkton of Largo	500
Dunbeg	660	Quarter	580	Dirleton	500
Blairhall	660	Inveraray	580	Crosshill	500
Aberfoyle	660	Torphichen	570	Muirton Gleneagles	500
Tarland	650	Firth Mossbank	570	St Johns Town of Dalry	500
Brae	650	Hamnavoe	570	Wellbank	500
Ballachulish	650	West Barns	570		
Helmsdale	650	Uplawmoor	570		

* Rounded to nearest 10.

Settlement Mapping

1. The following map section shows the general locations of each of the listed 514 settlements. The settlement boundaries are illustrated by a red outline, and each of their associated settlement names are shown in red uppercase, adjacent to the settlement.
2. To provide a geographic reference the settlements have been mapped against the Ordnance Survey 1:250,000 scale digital backdrop. This background mapping is shown in grey-scale and the definition has been muted to promote the clarity of the settlement boundaries. The Base mapping has Ordnance Survey © Crown Copyright, 2000.
3. These maps are purely illustrative and are provided to identify the general locations of the settlements only. For more specific settlement location queries see the contact details on page 8.
4. These maps have been produced by the Scottish Executive Geographic Information Service, 1 -J88, Victoria Quay, Leith, EH6 6QQ.

MAPS HERE – 44 A4 pages

The GROS postcode database and the 2001 Census

The postcode database

1. GROS maintain digital boundaries and 'index files' of postcodes. Royal Mail distinguish 'small user' and 'large user' postcodes, the latter typically being a single address that receives more than a given number of items of mail a day. GROS draws a boundary for each small user postcode to enclose all of the addresses that Royal Mail have assigned to the postcode. Each large user postcode is located and linked to the small user in whose boundary it falls. The index files link:
 - each large user postcode to a small user postcode; and
 - each small user postcode to a range of 'higher areas' such as council area, health board, electoral ward, civil parish, Output Area as used for the 1991 Census and so on.

Each small user postcode is given a 'centroid' as well as a boundary. The centroid is chosen as the building nearest the centre of the populated part of the postcode.

2. Where the addresses belonging to a postcode belong to more than one council area the postcode is split and each portion treated as a postcode in its own right. Thus postcodes, and any areas built up from postcodes, can 'nest' exactly into council areas. This is not the case for other area types, such as settlements, where each postcode is wholly allocated to the higher area in which the 'centroid' of the postcode falls.
3. The set of polygons for small user postcodes covers the entire land mass of Scotland to the boundaries. The combined external boundary extends as far as the mean high water springs (MHWS) shown on Ordnance Survey mapping and follows the outline of quays and jetties.

Products

4. The above datasets are maintained continuously throughout the year but twice annually frozen versions of the index and boundaries are created for sale to external customers, and (the index only) as the Scottish element of the UK Central Postcode Directory. The successive versions of the products are denoted 1999/1, 1999/2, 2000/1, 2000/2 and so on. Details can be found in the prospectus *Postcode Based Geography Products* (see www.gro-scotland.gov.uk).

Use of postcodes in the 2001 Census

5. GROS will be grouping together postcodes to form Enumeration Districts, that is, workloads for enumerators of up to 400 households. GROS also plan to group postcodes to form Output Areas (OAs) which will be the lowest level geography used to produce statistical output from the Census. To avoid disclosure of statistics:
 - each OA will have at least 20 households and 50 residents;
 - each AO is wholly assigned to a ward, postcode sector, settlement and so on with 'nesting' as exact as possible; and

- there will be only one grouping of postcodes into OAs.

The last two conditions are to ensure that any slivers between slightly different areas contain at least one OA (and therefore at least the requisite number of households and residents to meet the disclosure control requirements).

6. The OAs are nested into a variety of higher geography areas to enable accurate estimates to be produced. However this can produce conflicts in which nesting within one type of area may have to be given priority to over nesting within another. In creating OAs for 2001, GROS will give the following areas priority, in descending order:

- council area – to give exact statistics for administrative areas;
- settlement – to give exact statistics especially for the smaller settlements where, increasingly, rural policies may adopt a variety of cut-offs so as to include those with less than a given size as 'rural';
- 1991 OA – continuity at the detailed local level;
- postcode sector – for continuity with earlier Censuses; and
- 2001 electoral ward – users have expressed support for more prominence being given to these areas which may feature in statistics for the EU.

If other areas were added to this list, there would be too many constraints on the creation of OAs. Work is currently being done to check the impact of this order, particularly the effects on continuity of placing settlements above 1991 OAs.

7. The method of creating OAs is as follows. First, postcodes are grouped by common values of each of the 5 higher areas mentioned above. There is also a size restriction placed on the OAs. The target size is 50 households or 125 residents, with minimum and maximum threshold restrictions. The group is determined as being below-threshold, within-threshold or above threshold:

- less than 20 households/50 residents: this is where the higher areas have to be prioritised. The group is merged with a neighbouring group so that the resulting group is more likely to contain postcodes from more than one low priority area than from more than one high priority area. The group is re-assessed against the range;
- between 20-80 households/50-200 residents: the group becomes an OA; and
- above 80 households/200 residents: the group is split so as to create OAs that are geographically compact and have populations within range.

History of definition of 'urban' areas at GROS

Terminology and definitions

1. The Census Offices and Census users have used various words for the concept of an 'urban area'. The present definition used at GROS is that a settlement consists of one or more neighbouring localities and is entirely bounded by land designated as rural – or by water. Thus Saltcoats, Stevenston and Ardrossan are three localities on the Ayrshire coast and comprise a single settlement because each has a common boundary with one or more of the other two. Similarly the four localities of Kilwinning, Dreghorn, Irvine and Springside form a settlement.
2. For some purposes, a settlement is defined as comprising localities with less than a given distance between any pair of them, so the seven localities above could, in these cases, form a settlement. For the purposes of this paper, the definition of a settlement in the previous paragraph is used.
3. A locality within a settlement has no cast-iron definition. The process that created localities for previous Census included an element of subjectivity. For instance, where does Saltcoats end and Stevenston begin? Settlements are less subjective in that they are defined only by the distinction between 'urban' and 'rural' and not by the division of an urban area into smaller urban areas.

Why define localities or settlements at all?

4. When the former regions and districts came into being in May 1975, we lost the small local authorities known as large and small burghs. However, Census users still stated – and continue to state - a need to know the population (and characteristics of the population) of such areas. For example, an 'urban and rural' division is now used in the calculation of Grant Aided Expenditure for local authorities. Village shops are now exempt from business rates if they are in settlements of less than 3,000 population. Furthermore, land reform legislation being drafted by the Scottish Executive will apply only to rural areas of Scotland, defined as those parts of Scotland which are not settlements, as well as any settlements which fall below the minimum threshold number of residents. This threshold has yet to be decided upon.

The 1981 Census

5. By examining maps, GROS defined localities as 'continuously built-up areas that had approximately 500 or more population at the time of the 1971 Census'. In many cases, built up areas were split into localities based on the former burghs. Also some 21 localities were identified that had not been burghs. Each locality could be expressed in terms of one or more Enumeration Districts (ED), the basic output area for the 1981 Census. In all, some 540 localities were defined. These were grouped into settlements (as then defined) and an urban-rural code allocated to each settlement according to its population. This code for the settlement (1 to 5) was also assigned to each constituent locality, ED and postcode.

The 1991 Census

6. For the following Census, GROS had digitised the boundaries of postcodes. It was decided to use this information in creating localities, as we would have the population *density* for each postcode. So firstly postcodes were classed as urban or rural. A postcode was urban if either it had been assigned to a locality in 1981 or it had 5 or more persons per hectare. Then, groups of neighbouring postcodes were identified and, if the population of the group was 500 or more, the group was designated a locality.
7. Because this method would not identify non-residential areas that had come into existence since 1981, we decided to ask local authorities to scrutinise these localities and, where appropriate, suggest amendments. Following the acceptance of most of these amendments, we had the final allocation of postcodes to localities. Several additional localities, typically in crofting areas where many dwellings in villages had several hectares of land attached, were created at this stage. In these 'crofting' localities, all or most of the constituent postcodes were not 'urban' as defined above. These localities were accepted as such because, despite their low population density, they were considered to be villages acting as centres of local activity in a similar way as higher density localities elsewhere in Scotland. Finally, as for 1981, localities were grouped into settlements and an urban-rural code assigned.
8. For confidentiality reasons, the statistics for any 'higher area' such as locality were aggregated from the best-fitting set of OAs (see Annex A paragraph 5). OAs had already been created and therefore did not nest within localities. For the smaller localities, the best fit was not all that good. We had presentational problems in explaining the difference between a locality defined in terms of postcodes and the area for which we had produced statistics (one or more OAs).
9. Even when defined in terms of postcodes, some localities included large tracts of rural land outside the built up area because these tracts had been (arbitrarily) included within the boundary of some of the locality's postcodes.

Since 1991

10. We have maintained the 1991 locality and the urban-rural code on our postcode index. Any new postcode is assigned (by point-in-polygon) to the 1991 locality into which its centroid falls.
11. We have also been tidying up the boundaries of postcodes on the edge of a 1991 locality. The aim is to redraw the boundary of any postcode that includes both a built up area and a large tract of unpopulated land so as to exclude the latter. This will help in ED planning for 2001, as it helps ensure that an urban ED can be mapped more simply than if the ED included both urban and rural territory. In terms of differentiating between urban and rural parts of Scotland, it also provides a far more robust solution.

For 2000

12. We have created a new set of settlements by the following two-stage process. First, we identify 'urban' postcodes. A postcode is 'urban' if at least one of the following applies:
 - it has more than 2.1 residential addresses per hectare; or

- it has more than 0.1 non-residential addresses per hectare (Note that any large user postcode which falls into a small user postcode counts as 2 non-residential addresses).

These density thresholds are revised downwards for some Council Areas (generally those withcrofting communities) in order to ensure that at least 95% of postcodes in 1991 localities are selected as 'urban'. This downward revision is largely to achieve some level of continuity with the low density localities added in 1991 (see paragraph 7). For more information about the address densities used for 2000, see Annex C, paragraphs 6-9.

13. GROS determines the number of 'non-residential' addresses in a postcode by examining the text recorded by Royal Mail for each address. This method has been tested in Census tests where Census enumerators have to check addresses on the ground. As for 'large user postcodes', these are postcodes each containing one address that receives a large number of items per day. Royal Mail make special arrangements for delivery. GROS do not attempt to map these postcodes. Instead we link each one to a small user postcode by locating the address of the large user on our map and assigning it to the small user postcode within whose boundary it falls.
14. Having identified urban postcodes we will then identify any clump of neighbouring urban postcodes containing more than 210 residential addresses. A clump is made to include any 'holes' i.e. non-urban postcodes entirely surrounded by urban ones.
15. We ran this process on the 2000/1 version of the postcode index and boundaries available last January. The allocation of postcodes to settlements and assignment of urban-rural codes was complete in March when we issued a postcode index to supplement the 2000/1 index. Users can combine the two indexes and, with the 2000/1 boundary set, create settlement boundaries with population estimates. We also issued a settlement index giving the name, code and number of residential addresses of each settlement.
16. Compared with that for 1991 localities, this method:
 - uses addresses to create population estimates, which ensures the exercise can be repeated outside Census years;
 - uses two densities rather than one; adding a density for non-residential development helps ensure that unpopulated urban areas are picked up and classified appropriately; and
 - provides continuity with the previous exercise by, for some council areas, adjusting standard density thresholds rather than automatically including urban postcodes from the previous exercise.
17. We now aim to refine our methodology further and will be interested in the views of users (see Annex C, paragraph 18).

2001 Census

18. We plan to freeze our postcode index and boundaries for the 2001 Census on 24 January 2001. We intend to use this frozen version of the products in place of one of the regular releases of index and boundary, either the 2001/1 release (that would have

been issued in January 2001) or the 2001/2 release (July 2001). It seems best at the moment to issue 2001/1 as normal, and the frozen Census products as 2001/2.

19. The process for 2000/1 described above (amended in the light of user comment and further research) will be repeated for the frozen index and boundary. A supplementary postcode index and settlement index will be released.
20. At some point during Census processing when we consider that the number of households and residents in each postcode has stabilised, OAs will be created using, among other things, the allocation of (frozen) postcodes to settlements. The resulting products are a supplementary postcode index linking postcode to OA, and an index linking OAs to 'higher areas' including 2001 settlements. Boundaries of OAs and settlements may also be released but users will be able to generate these products from the indexes and postcode boundaries.
21. For the 2001 set of settlements at least, users may want a division into constituent localities. If so we will have to find a way of dividing the settlements into localities. The boundaries of the 1991 localities should be a useful starting point for such an exercise. However, there will have to be an interactive (i.e. subjective) element in the process of making a set of 1991 localities fit the area of a settlement. For example, where the 2001 settlement is larger than the equivalent group of 1991 localities, then each 1991 locality would have to be 'extended' so that all of the 2001 settlement is apportioned.
22. Note that the 2001 settlement will have been created without using Census data. However, a simple estimate of population has been made consistent with the mid-1999 estimates for council areas.

The methodology for 2000

Introduction

1. This Annex sets out our approach to defining settlements for the 2001 Census. This approach will enable users to derive divisions of Scotland into urban and rural by, for example:

- selecting settlements with more than a given population;
- creating drive-time zones around settlements with more than a given population

or by some other construction.

While the methodology developed is basically sound, we accept that there may be a need for some further refinement in the light of experience and user comment.

Why use postcodes?

2. There is merit in using a definition of urban that can be implemented automatically. The resulting settlements can be identified and updated inexpensively. Using postcodes offers such an approach. GROS holds information on the number of addresses contained by each postcode, and its boundary from which the area, and hence the density of addresses, can be calculated (as addresses per hectare). This information can be used to derive a selection of urban postcodes that will make up a settlement. The disadvantage of an automatic method is that there is limited scope for human intervention to compensate for any anomalies that may arise in the input data that was created for other purposes. Such anomalies may exist because of how:

- Royal Mail (RM) group addresses into postcodes;
- RM distinguish large users (LU) and small user (SU) postcodes; only SU postcodes are given boundaries by GROS; LU postcodes are instead 'linked' to the SU postcode whose boundary contains the LU; or
- GROS draw the boundary of SU postcodes; in particular, how unpopulated land is included within the boundary of any postcode (the GROS Census requirement is that postcodes should cover the entire land mass of Scotland);

or because

- the information on addresses and postcodes provided by RM is not fully up to date; or
- the information GROS use to distinguish residential from non-residential addresses is not fully accurate.

3. On the third of these points, we realised some time ago that the delineation of the boundaries of settlements would be affected by how we had drawn the boundaries of postcodes lying near the edge of a town or village. A postcode may contain a development consisting of tens of dwellings but fall below the density threshold because the boundary includes a large tract of unpopulated land. Work to identify such

postcodes near the boundary of 1991 localities and, where possible, amend the boundary of the postcode is now complete. We are examining ways of systematically building this task into our general work of maintaining postcode boundaries.

4. GROS believe that these elements of subjectivity are outweighed by the advantages of an automatic method of identifying urban Scotland. Being automatic, the method is inexpensive, and can be repeated relatively frequently (annually to begin with) to keep it up to date, thereby helping to address some of the anomalies mentioned above. We are confident that in the main this method is fit for the various purposes to which the results will be put.

The method

5. The method is a development of that used to create 1991 localities and, similarly, has two stages. The first is to identify 'urban' postcodes and the second is to group these into settlements retaining those groups with more than a given number of addresses. The 1999/2 version of the postcode index and boundaries (see paragraph 4 of Annex A) was used to investigate what density thresholds should be used in the general rule below (and variations from the rule). By the time these investigations were complete the 2000/1 version of the postcode products were available. The density thresholds were accordingly applied to the 2000/1 version of the postcode and boundaries to create the settlements described in this paper.

Identifying 'urban' postcodes – the general rule

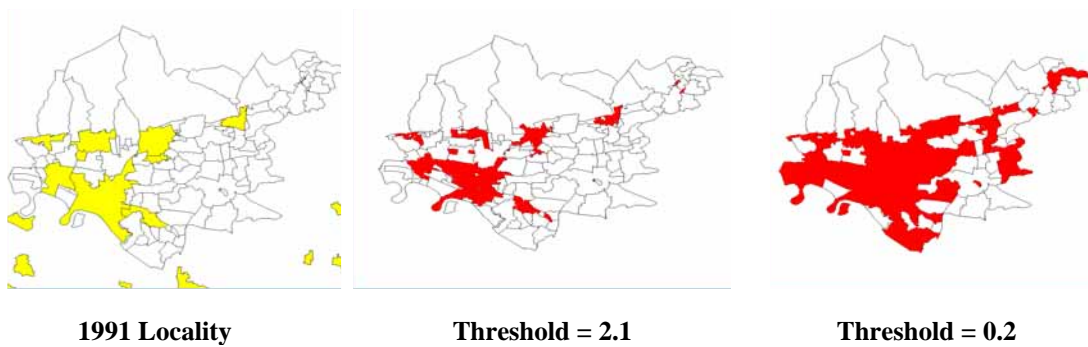
6. The general rule is:

A postcode is 'urban' if either the density of residential addresses per hectare exceeds 2.1 or the density of non-residential addresses per hectare exceeds 0.1.

The rationale for using two densities is that by doing so we identify both residential and non-residential parts of settlements. Unpopulated parts of a town, particularly industrial estates, should be identified by the inclusion of the threshold for the density of non-residential addresses. The rule, as worded above, can only be applied to small user postcodes because boundaries are not drawn for large user (LU) postcodes (see paragraph 2, second bullet). Each LU is accounted for by adding two to the count of non-residential addresses in the linked small user postcode before calculating the density.

7. The density threshold of 2.1 for residential addresses is broadly equivalent to the 5 persons per hectare threshold used to create 'localities' in 1991. (There are currently about 0.42 residential addresses per head.) The threshold of 0.1 for non-residential addresses was determined empirically by comparing the results of using this value with the maps for Clackmannanshire, the first council area in which the method (with various densities) was trailed. The maps below give an example of how the results differed when the density threshold was reduced from 2.1 to 0.2. In this council area, the above rule identified over 95% of current postcodes within the 'localities' created for the 1991 Census, so good continuity is assured. It also identified as urban about a quarter of the postcodes outside 1991 localities. Some of these postcodes are expected not to survive the next hurdle in creating settlements described later (see paragraph 12).

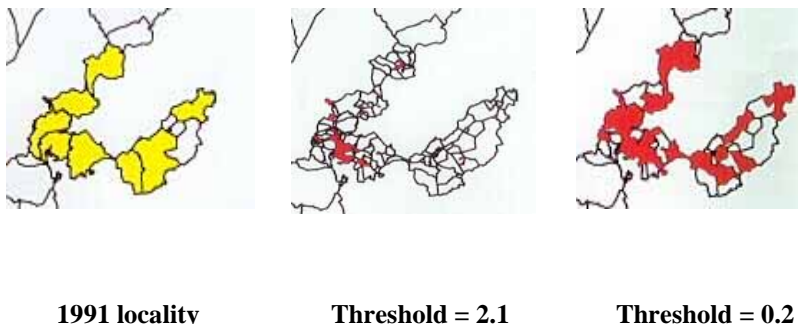
Density Threshold – Clackmannan



Non-standard threshold for density of addresses

8. The success of using the above thresholds for a relatively urban part of Scotland was not repeated when used for Eilean Siar. Very few of the relatively densely populated areas in this crofting area were identified. In order to ‘recover’ the bulk of the postcodes in 1991 localities, trial and error led to using thresholds as low as 0.14 and 0.01 for residential and non-residential densities respectively. The maps of Stornoway below show the difference between the 1991 locality and the urban areas recognised using the general threshold of 2.1 and the lower threshold of 0.2. Clearly the lower threshold produces a map much closer to the 1991 locality than the 2.1 threshold does. The 1991 localities in Eilean Siar are relatively low density with many of them added at the third stage of the 1991 Census process (see Annex B, paragraph 7). Table A shows that the average density in those postcodes in the 1999/2 index assigned to 1991 localities varied from almost 16 in Glasgow to below 1 in Shetland and Eilean Siar.

Density threshold



9. For the purposes of this paper, we have decided that we should accept the 1991 decisions about localities as valid. To provide for some continuity with 1991 and to account to some extent for the varying settlement patterns, particularly in crofting areas, we decided to vary the threshold for densities so that at least 95% of the postcodes in each council area assigned to 1991 localities were identified as urban. In council areas where the standard values of 2.1 and 0.1 already produced an excess of 95%, no change was made. Table B gives details for each council area showing the thresholds set and the resulting percentages. Note that refinement of the rule in paragraph 6 to take account of linked LU postcodes was added after the investigation of thresholds; so the calculations in the table will not precisely reflect a final assignment of 1999/2 postcodes to 'urban' or 'rural'. The LU refinement would give a slightly higher number of 'urban' postcodes.

Urbanisation of rural areas

10. Table C shows the percentage of 1999/2 postcodes outside 1991 localities identified as 'urban'. As stated above, some of these will not survive subsequent processes to become settlements. Others will reflect genuine urbanisation since 1991 – either belonging to new free-standing settlements or to extensions to existing settlements.

Identifying settlements, combining them, filling 'holes' and discarding small ones

11. Having determined the thresholds, they were applied to the 2000/1 postcode index and boundaries. Groups of neighbouring urban postcodes were considered to be 'candidate settlements'. The results for council areas were put together into a Scotland map and joined where candidates from two or more council areas abutted. Then we applied a procedure to change to 'urban' any non-urban postcodes that were entirely surrounded by urban postcodes (identified as above), including non-urban postcodes surrounded by urban postcodes and coastline. This ensured that areas such as parks, for example, were included in the urban settlement to which they belonged. This procedure was partly automated and we were able to examine individually particular instances containing a large number of postcodes.
12. Those candidates with more than 210 addresses (broadly equivalent to the 500 population cut-off used in 1991) were retained and named. The rest were discarded.
13. In eight cases, we combined two or more areas identified as settlements that we considered constituent parts of the same urban area. The parts had been named, say, 'Anytown (East)' and 'Anytown (West)' and were separated by strips of low density postcodes. This process will be looked at further to minimise any subjective element.

Calculating the population of each settlement

14. While the above work was progressing, it became clear from discussions with some users that they would find it extremely useful to have a population attributed to each settlement. Accordingly, a simple but crude method has been adopted. The RG's mid-1999 population estimates for each council area were divided by the estimated number of residential addresses and the resulting persons per address ratio applied to the number of residential addresses in each postcode within the CA. This estimate of the population for each postcode was summed for each settlement (and rounded to the nearest 10). These population estimates will be reviewed when 2001 Census results are available.
15. A further (small) number of settlements were then discarded as having an estimated population of less than 500. This is partly for presentation reasons and partly because the discarded settlements would not have been dissimilar to those that were discarded earlier for being below the 210 address threshold (paragraph 12).

Products

16. For existing customers of its postcode products (see www.gro-scotland.gov.uk), GROS will issue:
 - a postcode index showing for each postcode the code for the settlement, if any, to which it has been assigned; and
 - a settlement index showing, for each settlement, the settlement code and name and number of addresses in the settlement.

The contents of these indexes were decided before the methodology included the calculation of population. Population figures may be included in future releases.

Customer response

17. This is the first attempt by GROS to define urban areas since the 1991 Census outputs. We will be happy to receive comments in respect of both the names and, more important, the boundaries of the settlements.

Future Work

18. Tasks include:
 - discuss with users any comments they may have. This will be initially by correspondence, e-mail, etc. A meeting (or meetings) can be arranged if considered necessary;
 - possible re-specification of the contents of the products described at paragraph 16;
 - review the methodology in order to streamline the process, improve consistency of quantities used to define thresholds (addresses, residential addresses, population), etc;
 - automate, as far as possible, the identification and filling in of rural 'holes' within candidate settlements. The term 'hole' could be taken to include isolated rural incursions into urban areas ('fjords') that might be closed off. This study could also look at combining two or more areas identified as settlements that are constituent

parts of the same urban area. The parts are separately identified because they are separated by strips of low density. The resulting absorption of low density areas into a settlement may allow the density thresholds for some council areas to be increased with final settlements still showing some continuity with 1991 (if desirable);

- investigate ways of ensuring that depiction of boundaries meets requirement of forming basis for settlements (paragraph 3);
- consider possible refinements of method so as to use different density thresholds *within* a council area, for example, by defining densities by urban and rural or crofting, etc, for each council area. This may be done by examining how the size of land parcels associated with dwellings varies throughout the country. Conversely, we could try using a common threshold for the whole of every council area, i.e. use the 2.1 threshold and then fill in any 'holes'. We will have to do some analysis to see to what extent low density postcodes within or near groups of high density postcodes are swept up by a routine process to fill 'holes', close fjords and cross strips;
- investigate possible better ways of estimating population for each settlement, perhaps so as to be consistent with any other methods under development for estimating populations for small areas within council areas. Should population figures for each postcode be brought into the methodology at an earlier point e.g. as a substitute for the number of residential addresses? The latter is more reliable but is, in essence, a proxy for the former. Investigate the relationship of ratio between population and numbers of addresses. This may entail examining the relationship between each of the links in the following chain: address, residential address, residential address in use, residential address in use as main residence, number of residents;
- examine why some 17 1991 localities failed to materialise as settlements even though they each had an estimate population of at least 500 (see paragraph 18 of main paper). Each had at least one below threshold postcode that prevented a grouping of urban postcodes with sufficient addresses to become a settlement. This examination may be connected to that on filling 'holes', etc, above;
- split settlements into localities, so that OAs nest into localities instead of settlements; and
- considering detailed comments on particular settlements.

Table A Small user postcodes within the boundary of a 1991 locality:
Average residential addresses per hectare
(1999/2 index)

Council Area	Address Density	Residents per Address
Scotland	7.44	2.36
Aberdeen City	14.02	2.24
Aberdeenshire	6.16	2.44
Angus	9.60	2.26
Argyll & Bute	1.98	2.25
Clackmannanshire	10.47	2.32
Dumfries & Galloway	6.72	2.25
Dundee City	13.69	2.59
East Ayrshire	10.06	2.38
East Dunbartonshire	9.91	2.63
East Lothian	7.49	2.31
East Renfrewshire	11.37	2.61
Edinburgh, City of	17.41	2.11
Eilean Siar	0.60	2.14
Falkirk	9.13	2.26
Fife	10.33	2.27
Glasgow City	15.94	2.59
Highland	1.50	2.19
Inverclyde	11.24	2.87
Midlothian	9.64	2.48
Moray	3.77	2.26
North Ayrshire	9.38	2.34
North Lanarkshire	12.41	2.44
Orkney Islands	3.92	2.17
Perth & Kinross	5.48	2.32
Renfrewshire	12.94	2.33
Scottish Borders	7.45	2.14
Shetland Islands	0.35	2.37
South Ayrshire	7.91	2.31
South Lanarkshire	11.49	2.43
Stirling	7.23	2.45
West Dunbartonshire	13.65	2.44
West Lothian	9.79	2.37

Table B Small user postcodes inside 1991 localities:
Percentage identified as 'urban' using stated thresholds
(1999/2 index)

Council Area	Residential density threshold	Non-residential density threshold	Postcodes inside 1991 localities	<i>of which 'Urban'</i>	Percent 'retained'
Scotland	-	-	112085	108084	96.43
Aberdeen City	2.1	0.1	5090	4929	96.84
Aberdeenshire	1.9	0.1	3638	3457	95.02
Angus	2.1	0.1	2383	2296	96.35
Argyll & Bute	1.25	0.06	2008	1909	95.07
Clackmannanshire	2.1	0.1	1028	978	95.14
Dumfries & Galloway	1.9	0.1	3184	3025	95.01
Dundee City	2.1	0.1	4001	3896	97.38
East Ayrshire	2.1	0.1	2901	2768	95.42
East Dunbartonshire	2.1	0.1	2744	2658	96.87
East Lothian	2.1	0.1	2178	2090	95.96
East Renfrewshire	2.1	0.1	1993	1938	97.24
Edinburgh, City of	2.1	0.1	11331	11064	97.64
Eilean Siar	0.14	0.01	397	378	95.21
Falkirk	2.1	0.1	3227	3091	95.79
Fife	2.1	0.1	7370	7080	96.07
Glasgow City	2.1	0.1	13985	13599	97.24
Highland	0.90	0.04	4178	3972	95.07
Inverclyde	2.1	0.1	2060	1997	96.94
Midlothian	2.1	0.1	2128	2025	95.16
Moray	1.65	0.08	1889	1797	95.13
North Ayrshire	2.1	0.1	3169	3050	96.24
North Lanarkshire	2.1	0.1	6053	5883	97.19
Orkney Islands	1.58	0.07	304	289	95.07
Perth & Kinross	1.3	0.06	2741	2607	95.11
Renfrewshire	2.1	0.1	3832	3692	96.35
Scottish Borders	1.5	0.06	2361	2243	95.00
Shetland Islands	0.2	0.01	352	335	95.17
South Ayrshire	2.1	0.1	2475	2389	96.53
South Lanarkshire	2.1	0.1	6245	6071	97.21
Stirling	1.5	0.09	1857	1765	95.05
West Dunbartonshire	2.1	0.1	2104	2047	97.29
West Lothian	2.1	0.1	2879	2766	96.08

Table C Small user postcodes outside 1991 localities:
Percentage identified as 'urban' using stated thresholds
(1999/2 index)

Council Area	Residential density threshold	Non-residential density threshold	Postcodes inside 1991 localities	<i>of which 'Urban'</i>	Percent 'gained'
Scotland	-	-	25905	5349	20.65
Aberdeen City	2.1	0.1	286	116	40.56
Aberdeenshire	1.9	0.1	4725	463	9.80
Angus	2.1	0.1	1115	131	11.75
Argyll & Bute	1.25	0.06	950	227	23.89
Clackmannanshire	2.1	0.1	114	27	23.68
Dumfries & Galloway	1.9	0.1	3031	520	17.16
Dundee City	2.1	0.1	52	27	51.92
East Ayrshire	2.1	0.1	622	73	11.74
East Dunbartonshire	2.1	0.1	169	34	20.12
East Lothian	2.1	0.1	470	112	23.83
East Renfrewshire	2.1	0.1	220	59	26.82
Edinburgh, City of	2.1	0.1	181	44	24.31
Eilean Siar	0.14	0.01	475	181	38.11
Falkirk	2.1	0.1	292	50	17.12
Fife	2.1	0.1	1356	366	26.99
Glasgow City	2.1	0.1	0	0	-
Highland	0.9	0.04	2235	563	25.19
Inverclyde	2.1	0.1	104	20	19.23
Midlothian	2.1	0.1	414	93	22.46
Moray	1.65	0.08	917	155	16.90
North Ayrshire	2.1	0.1	555	156	28.11
North Lanarkshire	2.1	0.1	618	311	50.32
Orkney Islands	1.58	0.07	306	66	21.57
Perth & Kinross	1.3	0.06	1843	388	21.05
Renfrewshire	2.1	0.1	306	85	27.78
Scottish Borders	1.5	0.06	1557	259	16.63
Shetland Islands	0.2	0.01	190	74	38.95
South Ayrshire	2.1	0.1	690	102	14.78
South Lanarkshire	2.1	0.1	874	274	31.35
Stirling	1.5	0.09	636	128	20.13
West Dunbartonshire	2.1	0.1	69	10	14.49
West Lothian	2.1	0.1	533	235	44.09