

Aberdeen City Council
Local Development Plan

Brownfield Urban Capacity Study
Update 2013

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1. Introduction

1.1 What is the Aberdeen Brownfield Urban Capacity Study (BUCS)?

This study is an assessment of the potential of **brownfield** sites in Aberdeen to absorb future housing development. It has been produced as a technical appendix to the emerging Local Development Plan.

This study serves as an update to the most recent Aberdeen BUCS, which was published in December 2012. The study will help us to identify brownfield sites which are suitable for residential development, and will show our progress towards meeting the brownfield housing targets set out in Schedule 1 of the Strategic Development Plan (SDP) 2013.

A glossary of terms used within this study (in bold) is provided on page 17.

1.2 Strategic Development Plan Housing Allowances

The overall housing allowances have been carried forward unchanged into the 2013 SDP from the 2009 Structure Plan, however there is no longer the requirement to identify 500 separate units within **Regeneration Areas**; these 500 units now count as part of the general brownfield requirement to 2016.

We are seeking to identify our requirements to 2026, according to Schedule 1 of the SDP. However, it is unclear if those sites that appeared in the 2011 Housing Land Audit (which covered the year up to January 1st 2011) can be counted towards our requirement.

The 2013 SDP is currently undergoing examination and changes to Schedule 1 to include the 2011 sites are currently being put to the Reporters. For the purposes of this study we have calculated our brownfield capacity to include them. However, we have also included figures which do not count the sites which appeared in the 2011 Housing Land Audit and these can be found in Appendix 3.

Housing Allowance Area	Effective Supply 2011	Constrained Supply 2011	Existing LDP allocations to 2016	2017-2026	2026-2035	Total
Aberdeen City Brownfield and Regeneration Areas	1,188	1,244	4,500	3,000	3,000	10,500

Schedule 1 Housing Allowances in the Strategic Development Plan 2013

1.3 Sites included in the Study

All sites in the BUCS are considered to be suitable for housing and are not currently intended for a non-residential use either through planning permission or an allocation in the Plan. The study contains a mix of both effective and constrained sites. The SDP requirements do not specify how much of the brownfield requirement has to be effective; for this reason, no discounting of non-effective sites has been done.

To maintain consistency with previous studies, the main BUCS contains brownfield sites that do not have any form of extant planning permission. However, to help identify all the sites which can count towards our housing requirements, this year an *additional* list shows those sites which do have an extant planning permission (either detailed or in principle) or are under construction, as of 1st January 2013. From this list we counted the number of units which have been granted permission.

The table below provides a summary of the criteria for the different lists. A full list of all the sites included can be found in the appendices. In the results, the sites have been separated to maintain consistency and clarity, however they should be considered together as an estimation of the potential for new housing development on brownfield land in Aberdeen (see section 4.5)

Brownfield Urban Capacity Study	Additional Sites
Considered to be suitable for housing development	
Both effective and non-effective	
Not started or under construction	
Do not have an extant planning permission (either detailed or in principle)	Do have an extant planning permission (either detailed or in principle)

Criteria for the Brownfield Urban Capacity Study and Additional List of Sites

1.4 Preparation of the Study

The status of all brownfield sites in Aberdeen is kept up to date throughout the year by regular monitoring, including planning applications submitted and granted, as well as any new sites that arise.

By its nature, the BUCS is closely related to the Housing Land Audit. Once the HLA has been finalised, the brownfield record is checked to ensure consistency with the HLA in terms of completions and any new sites in Aberdeen City.

1.5 Base Date

For ease of reference and to maintain continuity, this study takes the same base date as the 2013 Aberdeen City and Shire Housing Land Audit, and therefore includes information for the year up to 1st January 2013. For this reason, brownfield developments which have been granted planning permission and/or developed after 1st January 2013 remain included in this study, but will be removed when next year's study is carried out.

1.6 National Policy and Strategy

Scotland's National Planning Framework 2 (NPF2) (2009) states that the Scottish Government wishes to see **vacant** and **derelict** land brought back into productive use for housing, economic purposes and to create attractive environments, describing it as a wasted resource that causes blight. NPF2 encourages the reuse of previously developed land in preference to **greenfield** land.

The Scottish Planning Policy (SPP) (2010) requires Local Planning Authorities to promote the most efficient use of land and buildings. In practice, this means "directing development towards sites within existing settlements where possible, to make effective use of existing infrastructure and service capacity and to reduce energy consumption" (SPP para 80).

SPP encourages Local Planning Authorities to carry out Brownfield Urban Capacity Studies to assess opportunities for further housing development within existing settlement boundaries (para 81). Identifying brownfield sites can help contribute to maintaining the required **5-year effective land supply** at all times.

2. Trends in Brownfield Development in Aberdeen over the last 20 years

2.1 Trends in Brownfield Completions in Aberdeen

Figure 1 shows the rate of housing development on brownfield land in Aberdeen City over a 20 year period from 1992-2012. This information is taken from the Housing Development Schedules (DABS).

Brownfield housing completion rates in Aberdeen have been generally high, with an average of 655 units per year being completed between 1992 and 2012. In 2008 the global economic recession resulted in a dramatic decline in brownfield housing completions across the country, with rates in Aberdeen dropping to a 20 year low in 2009.

The average for the period since the recession (2008-2012) is 445 units per year. Encouragingly, the figures for 2012 show a continued recovery.

Despite these trends, figures for planning consents (Table 3, in Section 3 below) have been much higher than actual completions, particularly since the recession, suggesting that there may be additional constraints on redevelopment of brownfield sites.

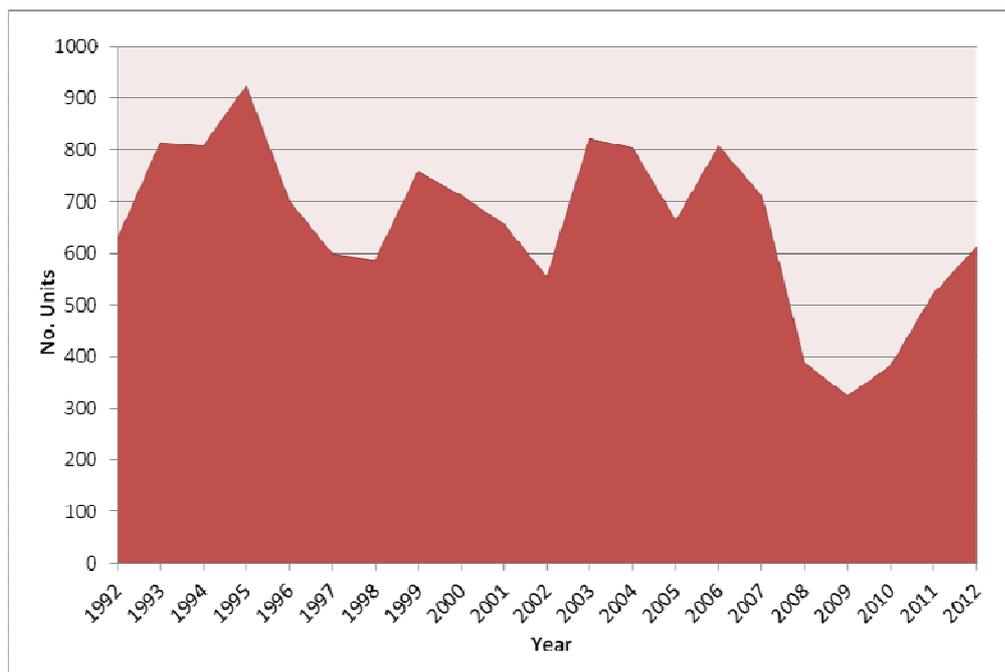


Figure 1: Brownfield Housing Completions 1992-2012

2.2 Brownfield and Greenfield Completions

The proportion of brownfield completions compared to greenfield completions (Table 1 and Figure 2) has also been steadily rising during this period - in 2008 and 2009 for example, there were no greenfield completions at all. This trend is likely due to the fact that all of the greenfield sites allocated for housing in the 1991 Local Plan have gradually been developed, and only a limited number of greenfield sites were allocated within the 2008 Local Plan.

We might expect these trends to change in the years to come given that the Aberdeen Local Development Plan (adopted in February 2012) has allocated significant new areas of greenfield land for housing, much of it to be released from the Green Belt. The rise in figures for 2012 may reflect the fact that construction is beginning on some of these sites.

Year	Brownfield	Greenfield
1992	626	628
1993	814	758
1994	807	534
1995	924	498
1996	702	373
1997	599	672
1998	586	420
1999	758	265
2000	712	193
2001	656	105
2002	554	99
2003	822	113
2004	803	49
2005	663	182
2006	807	71
2007	711	8
2008	387	0
2009	324	0
2010	382	10
2011	522	38
2012	612	135

Table 1 – Brownfield and Greenfield housing completions in Aberdeen 1992-2012

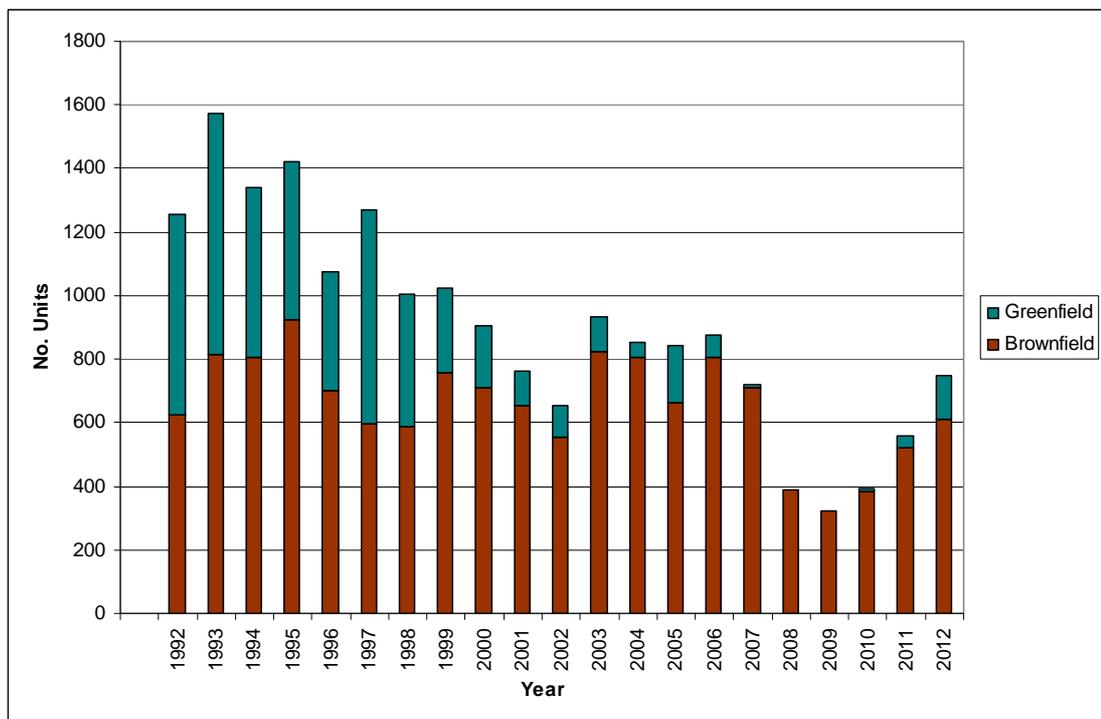


Figure 2: Proportion of Greenfield to Brownfield Housing Completions 1991-2011

3. Methodology

3.1 Guidance on carrying out the study

There is an absence of Scottish best-practice guidance available on how to carry out Brownfield Urban Capacity Studies. In light of this, we have used alternative sources of guidance to inform our approach.

These sources have included other Urban Capacity Studies, particularly the 2006 Glasgow and Clyde Valley Urban Capacity Study. Our approach was also guided by *Tapping the Potential: Best Practice in Assessing Urban Housing Capacity* (1999), an English guidance document produced for the then Department for Transport and the Regions. Although replaced in 2007 by the publication of the *Strategic Housing Land Availability Assessment*, *Tapping the Potential* remains the most useful guide to carrying out Brownfield Urban Capacity Studies. We have also made reference to the methodologies included in the Consultation Paper on the English Planning Policy Statement 3 Housing 2005/2006.

3.2 Sources of Suitable Sites

Table 2 shows the main sources of potential urban brownfield land which may be suitable for housing, according to the criteria discussed within the Glasgow and Clyde Valley BUCS and *Tapping the Potential*. Not all of these are considered appropriate in the Aberdeen context, and so their suitability or otherwise is briefly discussed in Table 2. Those sources that are considered suitable have been examined in depth to identify sites to be included in the study. They are as follows:

- Vacant and Derelict Land
- Housing Land Audit
- Public Sector Demolitions/ Institutions
- Redevelopment of Other Uses

It is possible that potential for further units could be identified through the subdivision of existing housing, flats over shops (particularly in the city centre) and intensification of existing residential plots. However these are difficult to assess accurately and do not always represent desirable trends of development. They have not been considered in any more detail in this study.

Note on Windfalls

It is reasonable to say that windfalls, which are sites that unexpectedly become available for redevelopment during the course of the plan period, will yield additional housing units over time. However, no specific windfall allowance is calculated in this study.

Table 2: Sources of search for brownfield land suitable for housing

Source	Glasgow & Clyde Valley BUCS	Tapping the Potential	Aberdeen	Notes
Scottish Vacant and Derelict Land Survey	Yes	Yes	Yes	Sites identified through the Scottish Vacant and Derelict Land Survey (SVDLS). It is good planning practice to 'recycle' vacant and derelict land and buildings back into use and the site visits conducted for this annual survey is a useful means of identifying new potential sites.
Housing Land Audit	Yes	No	Yes	The established land supply for the Housing Land Audit may include new brownfield sites which can be included in the BUCS. These may be effective or non-effective. Housing on non-effective sites is generally acceptable in principle, and although it is constrained in planning terms by one or more factors, these sites should nevertheless be examined in more detail.
Public Sector Demolitions/Institutions	Yes	No	Yes	A number of public sector demolitions are currently being carried out by Aberdeen City Council. The majority of these are former school sites, some hospitals as well as the former Council HQ St Nicholas House.
Redevelopment of Existing Areas - Regeneration Areas	No	Yes	No	The Strategic Development Plan no longer requires a separate housing requirement within Regeneration Areas, but has added this to the overall brownfield requirement. However, there are no significant housing-led regeneration programmes currently underway in Aberdeen, so this source is not significant in Aberdeen.
Car Parks	Yes	Yes	No	There is no review of car parking underway at the time of writing and so no way of telling whether any car parks are underused or in the wrong place. This category should therefore be discounted as a potential housing source at this stage.

Green Spaces	Yes	Yes	No	Planning policies in Aberdeen are supportive of retaining open space in order to protect amenity, recreation and the natural environment. This category should therefore be discounted as a potential housing source.
Redevelopment of Other Uses	Yes	Yes	Yes	These sites include miscellaneous sites identified in the Local Development Plan, through development options or by planning and asset management officers. A number of these sites are still in use. Such sites have been included where there has been an interest expressed in their redevelopment and/or reallocation.
Subdividing Homes	No	Yes	No	The Tapping the Potential guidance suggests using past trends to estimate future potential and discounting over time as fewer larger dwellings remain. Aberdeen's long-term data on subdivisions is unreliable and no longer-term picture can be seen. Although this study cannot therefore examine this source in detail, it should be recognised that it is likely to continue to provide a significant source of housing over and above that identified in this study.
Flats over Shops	No	Yes	No	A crude rule of thumb suggested in Tapping the Potential is that a third of floor space above shops is available for conversion and that a third of this figure is suitable for conversion. However, the crudity of this method and the relatively low yield makes its inclusion in this study questionable. It was not used in the Glasgow & Clyde Valley Urban Capacity Study.
Empty Homes	No	Yes	No	There is little the planning system can do to bring empty private sector properties into use. Most of those in the public sector are being dealt with in the regeneration areas. It is also the case that the overall number of empty homes is very low, standing at 2% in 2011. This category has therefore been discounted as a potential housing source (Source: Scottish Neighbourhood Statistics 2012).

Intensification (for example back land and garden development)	No	Yes	No	Further development is likely to continue to come forward from this source as unidentified windfalls. However, identifying individual sites could be very time consuming. It could lead to pressure for development which could have an adverse effect on the character of some areas. This category should therefore be discounted as a potential housing source.
Review Existing Allocations	No	Yes	No	Tapping the Potential suggests a review of existing allocations in order to increase their density. As part of the review of the Local Development Plan 2013, we are not planning to reassess our existing allocations, either greenfield or brownfield.

3.3 Calculating Urban Potential

Once specific sites have been identified as being suitable for housing from the sources described above, an estimation of their potential yield (the number of homes they could accommodate) has to be made. These estimations have only been made for sites which do not have planning permission and therefore fall into the BUCS (for sites in the additional list which have planning consent, we have counted the number of units for which permission was granted).

Two methods of calculating potential yield have been used: one method is based on the density of previous brownfield housing planning consents in Aberdeen City, whereas the other is based on generic or notional densities according to a site's location in the city.

Method 1

Previous Brownfield Housing Densities in Aberdeen

Table 3 shows the total number of housing units on brownfield sites which were given planning consent in Aberdeen from 1997 to 2011, and the average density (units per hectare) for each year. As this table illustrates, there are no discernable trends in the average densities of consents over this period. While the average sits around 68 units per hectare, for some years the figures have been significantly affected by one or two sites being granted permission to build at either particularly low or particularly high densities.

	Sites	No Units	Hectares	Units per ha.
1997	16	341	6.15	55.5
1998	26	861	15.42	55.8
1999	16	562	6.83	82.3
2000	17	787	9.44	83.3
2001	10	578	6.31	91.6
2002	12	439	7.83	56.1
2003	25	1,098	18.03	60.9
2004	14	881	18.09	48.7
2005	12	372	8.15	45.6
2006	15	905	23.29	38
2007	22	556	5.58	100
2008	8	488	25.86	19
2009	17	1241	11.61	107
2010	6	118	3.19	37
2011	19	1867	53.61	139
total	235	11,094	219.39	Av.density 68

Table 3: Number & density of brownfield planning consents in Aberdeen 1997 to 2011

We then went on to divide all of these sites into those which are small (up to 2ha) and large (over 2ha), calculating the average densities of consents for housing within these categories (Table 4).

	Sites	No Units	Hectares	Average Units per ha.
Large Sites >2 ha	29	4,455	145.42	30.64
Small Sites <2 ha	206	6,601	74.22	88.94
TOTAL	235	11,056	219.64	50.34

Table 4: Density of small and large brownfield site planning consents in Aberdeen 1997- 2011

Consents for larger sites over 2ha tend to be for a lower density (around **30 units/ha**) than on smaller sites (around **90 units/ha**).

These average densities have been applied to the sites identified as suitable for housing (as per the sources discussed in Section 3.2) in order to provide an estimate their potential capacity. These results are presented in Section 4.

METHOD 2

Indicative Density Ranges (IDR): Estimated Densities Based on Location in the City

A second method of the potential housing yield of sites is using the Indicative Density Ranges (IDR) set out in the Consultation Paper on the English Planning Policy Statement 3 Housing 2005/2006. Annex C of the Consultation Paper suggested the following Indicative Density Ranges (units per hectare) for different locations in the city:

- City Centre 70-95
- Urban 40-75
- Suburban 35-55
- Rural 30-40

We have applied these to Aberdeen in the following way:

- City Centre:** The area identified as the City Centre in the Aberdeen Local Development Plan Proposals Map.
- Urban:** The urban part of the 'Former City' parish area

Suburban: Remaining settlements and built up areas within the former parishes of Old Machar, Dyce, Newhills, Peterculter and Nigg

Rural: Green Belt areas (no sites have been identified here)

The identified sites can be divided into each of these areas, and the high and low notional densities suggested by the Consultation Paper applied, to give an estimated high and low yield for each site according to its location in the city. It should be noted that these may be regarded as conservative estimates compared to previous brownfield consent densities in all areas of Aberdeen. The results are presented in the next Section.

4. Results

4.1 Total Brownfield Housing Potential in Aberdeen (with 2011 Audit Sites)

By applying the various density scenarios discussed in Section 3 to the potential brownfield housing sites included in this year's study, we found that there is the potential to accommodate between 4726 (IDR High scenario) and 3197 (IDR Low scenario) total new homes on these sites (rounded to the nearest whole number). The figures based on small and large densities sits in between the two.

The majority of these sites are located in the main urban area of the city, outside of the City Centre. Delivering these homes depends on a wide range of factors including planning constraints on individual sites.

IDR High Scenario	IDR Low Scenario	Small and Large Densities
4726	3197	3964

4.2 Sites with Planning Permission

This section shows how many brownfield units currently have planning permission in Aberdeen (regardless of whether they were in 2011 audit) and which can also count towards meeting our brownfield housing allowances.

Total units with planning permission 1 st Jan 2013	2431
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When this figure is added to the estimates for sites without planning permission (including those that feature in the 2011 audit) we have a figure which gives a more accurate reflection of the total brownfield land housing capacity in Aberdeen.

Total brownfield capacity	Between 7157 (highest estimate) and 5628 (lowest estimate)
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4.3 Brownfield Housing Potential Per Annum

In addition, this Brownfield Urban Capacity Study has identified sufficient land to accommodate up to between 570 and 740 units per annum over the next ten years. It will be necessary to continue to review this study to monitor whether the City can continue to provide this level of brownfield development, although past trends would indicate that it can.

4.4 Conclusions

It is not thought reasonable to try and identify brownfield sites too far ahead in the future as sites tend to become available and redeveloped all the time – sometimes unpredictably. Nevertheless, the results show that we have enough suitable brownfield land to meet the majority of the brownfield housing requirements set out in Schedule 1 of the Strategic Development Plan. The subdivision of homes and the conversion of smaller commercial buildings, whilst not examined in detail here, are also likely to continue to make a significant addition to these figures as ‘windfalls’. These figures could therefore be regarded as a conservative estimate.

5. Glossary

Brownfield - land which has previously been developed. The term may include vacant or derelict land (see below) or land occupied by redundant or unused buildings.

Constrained – sites which are not immediately available for redevelopment, for example due to legal, ownership, marketability, access or infrastructure factors. These issues are a barrier to the imminent development of a site.

Derelict Land - land which has been so damaged by development, that it is incapable of development for beneficial use without rehabilitation.

Effective Site - sites which do not have identified constraints and are therefore expected to be available for housing development

Greenfield – land which has not been previously developed.

Non-Effective Site – see also **constrained**.

Regeneration Area - areas designated as in need of intervention to improve wellbeing, through programmes of demolition and rebuilding of housing

Vacant Land - vacant land is land which is unused for the purposes for which it is held and is viewed as an appropriate site for development.

5- Year Effective Land Supply – the total number of units which expected to come forward within 5 years and includes an estimate of the likely contribution of small sites of five units or less.

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Appendix 1: Brownfield Urban Capacity Study 2013 Sites

Brownfield Capacity Study Sites 2013			
Site Name	Size	Source	Location
Abbey Road North, Torry	1.51	SVDLS	Urban
Aberdon House Care Home	0.64	Other Uses	Urban
Aberdeen College, Gordon Centre	2.21	Other Uses	Suburban
Aberdeen College, Gallowgate	1.11	Institutions	City Centre
Balgownie Home Farm	1.3	SVDLS	Suburban
Ex-Barracudas	1	SVDLS	Suburban
Balgownie Centre	2.25	SVDLS	Suburban
Balgownie Machine Centre	0.3	SVDLS	Urban
Balgownie Primary	0.71	Institutions	Suburban
Ex- BP Car Park, Wellheads Ave. Dyce	0.57	SVDLS	Suburban
Bankhead Academy	2.7	Institutions	Suburban
Braeside Infant School	1.28	Institutions	Urban
Byron Park Nursery and Infant School	0.77	Institutions	Urban
Burnside Centre	2.4	Institutions	Urban
Cornhill Hospital	approx. 5	SVDLS	Urban
Cattofield Reservoir	151	SVDLS	Urban
Cults Pumping Station	0.69	Other Uses	Suburban
Crown House	0.04	Other USes	City Centre
Causewayend Primary School	0.69	Institutions	Urban
Craighill Primary School, Kincorth	0.86	Institutions	Urban

Former Carden School	0.37	Institutions	Suburban
Dunbar Halls of Residence	1.23	SVDLS	Urban
Denburn and Woolmanhill Medical Centre	1.9	Institutions	City Centre
Former Dutch School, Boyd Orr Avenue	0.18	HLA	Suburban
Greenfern Infant School	0.91	Institutions	Urban
Hilton Nursery School	0.61	Institutions	Urban
96- 126 John St	0.4	HLA	City Centre
Kennerty Mill	0.1	SVDLS	Suburban
Former Scottish Water Kittybrewster Depot 1	1.65	SVDLS	
Logie Place (former shops)	0.12	SVDLS	Urban
Manor Walk	2.65	Other Uses	Urban
Marchburn Infant School	1.08	Institutions	Urban
Mile End Primary	0.51	Institutions	Urban
Milltimber Primary School	1.85	Institutions	Suburban
Nazareth House, 34 Claremont St	1.3	HLA	Urban
Oscar Road Nursery Torry	0.6	Institutions	Urban
St Peter's Nursery Spital	0.09	Other Uses	Urban
Raeden Centre/nurseries	approx 1.5	Institutions	Urban
Ex Sports club on river Dyce	0.44	SVDLS	Suburban
Former Summerhill Academy*	3.3	Institutions	Urban
Smithfield School	2.27	Institutions	Urban
St Machar Primary	1.01	Institutions	Urban
St Nicholas House, Broad St	0.5	Institutions	City Centre
Tillydrone Primary School	2.11	Institutions	Urban
Urquhart Road Works	1.2	SVDLS	Urban
Victoria House, West North St	0.21	SVDLS	City Centre
Victoria Road School	0.67	Institutions	Urban

VSA Gallowgate	0.12	Other USEs	City Centre
Waterwheel Inn	0.57	SVDLS	Suburban
Water Lane Grannary	0.06	HLA	City Centre
Woodside Congregational Church	0.07	HLA	Urban
BUCS Sites in 2011 Audit			
Bimini Guest House	0.04	HLA	Urban
31- 35 Froghall Road	0.62	SVDLS	Urban
Froghall Terrace	2.75	HLA	Urban
54 Park Road	1.34	HLA	City Centre
1 Western Road	0.07	HLA	urban

Appendix 2 Additional List – Brownfield Sites with Planning Permission

Sites with permission	
Broadford Works	3.7
Craigieburn House, Springfield Rd	0.3
Croft House (?!)	0.2
3-9 Duff St Former Warehouse	0.31
Former Davidson's Mill Mugiemoiss Rd	6
Greyhope Road sparkling drinks	0.65
11 Jopps Lane	0.01
124 North Deeside Road	0.13
41 Nelson Street	0.09
279- 281 N. Deeside Road, Peterculter	0.15
Pittodrie Stadium	5.6
Seaforth Road	0.06
1 -5 Salisbury Terrace	
Stoneywood Road	0.7
Woodlands School, Craigton Road	0.7
Westburn Crescent	0.25
22 Balnagask Road Double 2	0.1
Former BP site Dyce (part) Burnside Drive	3.1
Copper Beech, Auchinyell Rd	0.31
Former Ambassador Snooker Halls?	0.19
45-47 Holland St	0.07
Powis Lane	0.09
1 and 2 Springbank Terr.	0.06
Stockethill Church	0.5

Appendix 3: Capacity Totals excluding sites included in the 2011 Audit

Even when sites that appear in the 2011 HLA are discounted, there is still the potential to accommodate between **4363** (IDR High scenario) and **3004** (IDR Low scenario) total new homes on these sites (rounded to the nearest whole number).

IDR High Scenario	IDR Low Scenario	Small and Large Densities
4363	3004	3695

In addition, 1685 units have been granted sites which already have planning consent, excluding those which feature in the 2011 HLA.

Total units with planning permission 1 st Jan 2013	1685
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This means that, excluding 2011 HLA sites, Aberdeen has the potential to provide between 6048 and 4689 units.