HIGHLAND HOUSING MARKET PARTNERSHIP
THE POPULATION AND HOUSEHOLD
GROWTH SCENARIO TO BE USED IN OUR 2014 HNDA

A originally written, this note described the scenario used in our first Housing Need and Demand Assessment submitted to the Centre for Housing Market Analysis. The Centre considered the scenario to use a "stock based" approach that was outwith the scope of an HNDA appraisal, and as such could not be assessed in terms of robust and credible. The Council has subsequently changed its approach to use the high migration scenario (which is "stock neutral" in terms of the HNDA process) and submitted a revised HNDA to the Centre.

This note has been retained as part of the background documentation to our HNDA as it gives context and useful information to help understand the long term relationship between population and household growth and housing requirement in Highland.

Introduction

At its meeting on 3rd October 2014 the Highland Partnership agreed that our 2014 Housing Need and Demand Assessment (HNDA) should aim to deliver the historic long term (20 year average) rate of new house completion in Highland - 1,180 houses per year. The note considered by the Partnership is given as Appendix B and this is Option 4 of the list given at the end of the Note.

This approach has been analysed further and refined in the light of the findings. Specifically, the increasing impact of our ageing community in the second half of the 25 year projection period means that the requirement is likely to fall with time, and the full 1,180 is unlikely to be required throughout the period. In addition, the variation in age profile and non-effective stock between Housing Market Areas (HMAs) means that the distribution of the total across Highland needs careful thought.

This Note builds on Appendix B and describes how a population and household growth scenario has been constructed that would generate this level of housing requirement. This scenario – the "HNDA scenario" - builds on the 2012 high migration scenario population and household projections, and has been used to calculate the household growth used in the HNDA tool.

Variation in the Rate of Household Growth through Time

The chart on page 6 of the Appendix demonstrates that all of the 2012 based household projections show similar patterns of change through time, although the rate of change clearly varies depending on the scenario. Using the high migration scenario as a reference point, the main features are:
  o Steady growth until 2017 as a result of national assumptions, inherited by Highland, on the growth in net inward migration from the 2012 level until it stabilises at the long term figure in 2017.
  o A period of relatively steady growth from 2017 to until 2024: beyond the end of the 5 year Local Housing Strategy (beginning in 2015) and half way through the full 20 year Local Development Plan period.
  o Steady decline from 2024 onwards with household growth at the end of the period in 2027 less than half of the peak figure in 2019.
These trends also apply to the scenario used in our HNDA. If the long term average of 1,180 houses per year were to be maintained beyond 2024 this would require an increasing level of inward migration, rising to unfeasible levels at the end of the period when it would be over 2,500 per year.

This is significantly higher than each of the historic 20 year average, the figure used in the 2012 high migration scenario, and our previous HNDA (870, 1,100 and 1,650 respectively).

As this level of migration over a number of years is not feasible the approach has been modified to base the 25 year scenario on the level of migration and population change that will result in a housing requirement of 1,180 over the five year period 2017 to 2022. A period starting in 2017 has been used rather than one starting in 2015 (the start of our LHS) as all population projections inherit the NRS assumption that migration will not stabilise at the long term figure until 2017.

Converting Household Growth to Housing Requirement

Three sets of population and household projections (principal, high migration and low migration) are available for each of our HMAs and this allows the relationship between net migration and household growth to be established. It is not a linear relationship as the inward and outward migration profiles have different distributions by age and gender, but it has been possible to "back calculate" with reasonable accuracy the rate of inward migration that would require an average of 1,180 houses per year over the five years starting in 2017. The steps in this calculation are as follows:

- o Estimate the percentage of new builds likely to become ineffective stock (defined here as vacant plus second / holiday homes). We do not have any systematic data on this but there is strong anecdotal evidence that many new builds in rural areas become second / holiday homes. The assumption used here is therefore that new builds will be as effective as the existing stock within the HMA, using figures from the 2011 Census shown in the table below. Note that the three component HMAs in Ross & Cromarty and handled in a slightly different way to the eight other areas and their figures are shown separately.

| Housing Market Area	Percentage of Ineffective Stock (vacant plus second / holiday homes) 2011 Census
Badenoch & Strathspey	16.7
Caithness	6.1
Inverness	4.2
Lochaber	12.2
Nairn	3.7
Ross & Cromarty	7.3
Skye & Lochalsh	19.1
Sutherland	16.3
East Ross	*4.8*
Mid Ross	*4.3*
West Ross	*18.3*
Highland	8.4

- o From the Highland ineffective stock average of 8.4% calculate the rate of household growth that would require 1,180 houses per year average: this is household growth of 1,093 per year.
- o From the relationship between net migration and household growth, calculate the rate of net migration that would result in household growth of 1,080 per year: this is 1,780 net per year.
- o Allocate the 1,780 per year between HMAs in the same proportion as the high migration scenario already calculated.
- o From this point, follow the process already used for the three existing migration scenarios to produce population and household scenarios for HMAs.

o   Calculate the housing requirement for each HMA taking account of the percentage of ineffective stock shown in the previous table.

The results of this process are summarised in the table below which give the rate of net inward migration that would generate the household growth requiring 1,180 houses per year.

	Net Inward Migration	Projected Average Household Growth per year 2017 to 2022	Projected Average Number of New Houses per year 2017 to 2022
Badenoch & Strathspey	135	84	100
Caithness	60	41	45
Inverness	790	505	510
Lochaber	100	72	80
Nairn	135	62	70
Ross & Cromarty	365	237	255
Skye & Lochalsh	85	59	75
Sutherland	110	34	45
East Ross	-	*98*	*100*
Mid Ross	-	*107*	*110*
West Ross	-	*32*	*45*
Highland	1,780	1,093	1,180

The projection of this rate of inward migration throughout the full 25 year period in the chart below shows how the housing requirement falls through time, particularly during the second half of the period when the margin of deaths per year over births begins to grow.
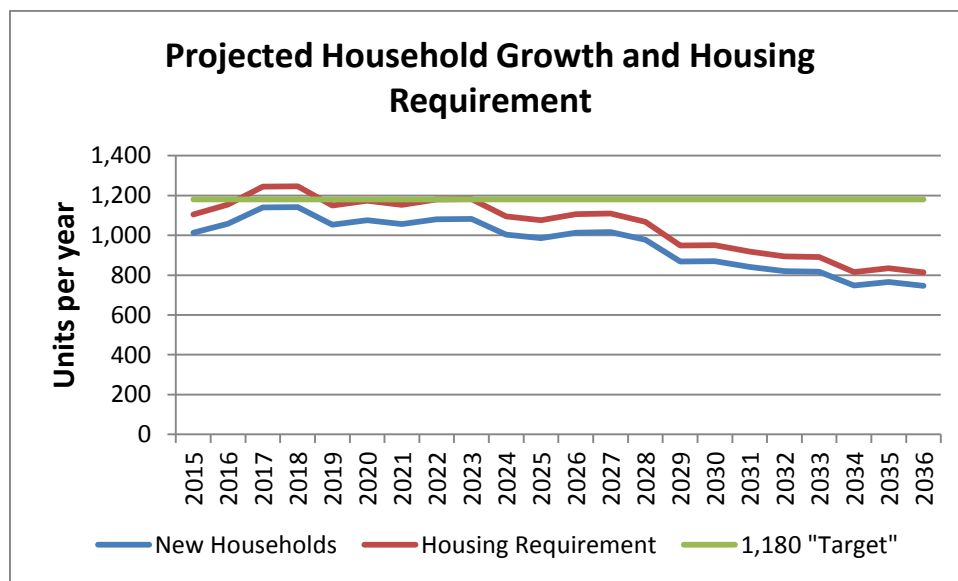
The Table in Appendix A shows the projected household growth per year in each HMA that results from the process described above.

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APPENDIX A

HNDA SCENARIO

PROJECTED HOUSEHOLD GROWTH PER YEAR IN EACH HOUSING MARKET AREA
This is the household growth scenario input as the "HNDA Scenario" to the HNDA Tool in the format of total number of households in each year (rather than the year on year growth)

Year Beginning	BS	CA	ER	IN	LO	MR	NA	SL	SU	WR	Highland
2012	43	30	38	339	35	57	33	30	10	31	646
2013	59	43	79	411	46	71	44	39	19	35	846
2014	65	41	79	442	58	88	49	45	23	33	924
2015	73	40	85	479	64	104	53	52	33	29	1,012
2016	77	43	91	480	69	108	59	54	41	36	1,058
2017	85	54	101	508	76	107	66	67	41	35	1,140
2018	86	48	109	515	74	116	64	61	37	32	1,142
2019	81	36	89	501	71	108	57	57	24	29	1,053
2020	82	37	98	502	66	105	65	60	32	28	1,075
2021	86	32	92	496	73	102	57	51	34	35	1,057
2022	85	31	81	514	74	117	62	60	30	28	1,081
2023	91	34	92	513	77	109	63	50	28	27	1,082
2024	85	14	91	502	68	84	55	50	23	32	1,004
2025	78	18	70	498	69	102	56	46	20	28	985
2026	78	18	79	508	73	106	54	45	27	25	1,014
2027	82	9	82	527	72	89	58	50	18	29	1,016
2028	82	13	64	517	70	92	60	35	16	29	978
2029	75	-4	71	484	56	83	45	36	5	19	869
2030	64	-3	53	512	55	83	50	34	5	16	870
2031	66	-7	59	496	55	78	40	27	7	21	842
2032	69	-13	56	508	52	66	43	26	-4	15	820
2033	70	-12	47	512	53	73	49	15	-6	15	816
2034	63	-22	45	483	47	67	36	18	-6	18	747
2035	60	-17	45	510	48	63	44	15	-10	6	765
2036	61	-18	43	486	47	72	38	10	-1	9	746
2017 to 22 average	84	41	98	505	72	107	62	59	34	32	1,093

APPENDIX B

HIGHLAND HOUSING MARKET PARTNERSHIP

**DISCUSSION NOTE ON THE POPULATION AND HOUSEHOLD
GROWTH SCENARIO TO BE USED IN OUR 2014 HNDA**

> ***The Housing Market Partnership is requested to recommend the population and household growth scenario to be used in our Housing Need and Demand Assessment, based on the four options given in the final section of this note.***

Background

Our ongoing 2014 Housing Need and Demand Assessment (HNDA) will form the basis for our Next Local Housing Strategy (LHS) and Local Development Plan (HwLDP), and the population change that we expect to see in Highland will play a major part in determining the housing need and requirement.

The population and household projections we use are closely aligned to the 2012 based series produced by National Records of Scotland (NRS), and will be based on detailed background data supplied by them. These projections present challenges for Highland as they suggest lower rates of population and household growth than we have seen historically, and there is a case that Highland has been adversely impacted by some assumptions made at a national level.

This note looks at the key features of the underlying assumptions together with the projections and their comparison with recent trends, and goes on to outline some options for the scenario to be used in our next HNDA. It presents figures for Highland overall and uses the periods 2015 to 2020 (for the LHS) and 2015 to 2025 (for the HNDA and HwLDP). Equivalent information is also available for all 10 Housing Market Areas (HMAs).

The HNDA Process in Highland

Guidance on HNDAs has become more focused through time, but the principle we have always applied in Development Plans and our LHS is a logical, sequential approach:
  o The process starts with population projections for the eight former areas in Highland based on NRS (GROS) scenarios using migration data supplied by NRS, and local fertility and mortality rates supplied by NHS Highland.
  o The choice of the most appropriate scenario based on local trends and economic and demographic drivers. Our last 2010 HNDA was influenced heavily by SG Guidance that aimed to ensure a generous supply of land for housing and was based on the 2006 high migration scenario (net migration +1,650 per year into Highland).
  o The chosen population scenario is converted into future numbers and types of households using "headship rates" for Highland supplied by NRS.
  o The household change is converted to a housing requirement by making an adjustment for ineffective stock (typically +10% Highland average), and this is converted in turn to a housing land requirement by making an addition to enable choice and allow for local uncertainty.

o Our 2005 LHS used a survey based approach to establish need. The HNDA for our 2010 LHS was based on an affordability model developed by Herriot Watt University, and the 2006 population projection described above.

Work on our current HNDA has continued using this approach and we now have principal, high and low 2012 based population and household scenarios for each of our 10 HMAs together with robust output from the HNDA tool supplied by the CHMA (albeit using some default parameters – we are looking into better local information where possible).

Results from the HNDA tool will change if local data is available but one key output is that, in general terms, around half of the household growth will require some form of subsidised housing, although not all of this is conventional social rented housing. The choice of scenario therefore affects the housing need as well as the overall requirement.

Population Projections – Overview

Highland has an ageing population. Deaths currently exceed births by a small amount each year and the gap will widen through time, but over the 25 year projection period this balance is relatively insensitive to assumptions on birth and death rates, and migration is the dominant influence. Migration tends to be cyclical – linked loosely to economic cycles- and the chart below shows how historic net migration to Highland compares with the figures assumed in the 2012 series of projections. The principal assumption of +700 long term is below the 20 year average of 870 (and well below the 10 year average of 1,390) and the high migration assumption is +1,100.

Actual and Projected Net Migration, 1982 on
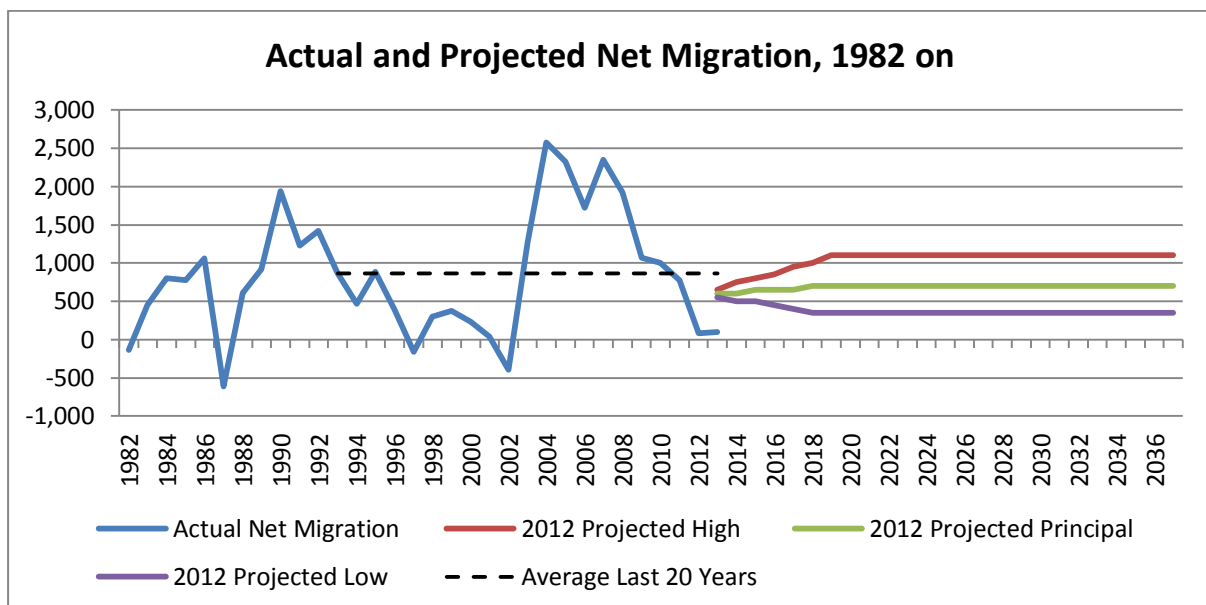
Population *projections* are called this because they are a forward projection of recent trends and use the average of the last five years for migration, fertility and mortality, longer for trends in birth and death rates. The average rate of inward migration to Highland over the past 5 years (to 2012) was 930 and normal practice by NRS would be to use this as the basis for the principal projection, rather than the figure of 700 they actually used. Net migration into Highland from the rest of Scotland is neutral and our gain comes from the rest of the UK and overseas. For 2012, assumptions were made at a national level about migration from overseas and between UK countries and these were cascaded to Scotland and then areas within Scotland – it is this process that has led to a lower migration assumption than we would have expected.

The chart below shows how the growth from the 2012 based projections compares with the average over the 20 years ("long term trend"), and also the projection used in our 2010 HNDA. It shows that the growth used in our 2010 HNDA is very similar to the average trend over the 20 years to 2012, and that all 2012 projections are significantly lower. As the projection used in our 2010 HNDA only goes up to 2031 the comparisons below use the long term trend.

2015 to 2020: The 2012 high migration scenario suggests a population increase of 4,850 between 2015 and 2020 which compares with an increase using long term trends of 6,810.

2015 to 2035: The 2012 high migration scenario suggests a population increase of 17,000 between 2015 and 2035 which compares with an increase using long term trends of 27,240.
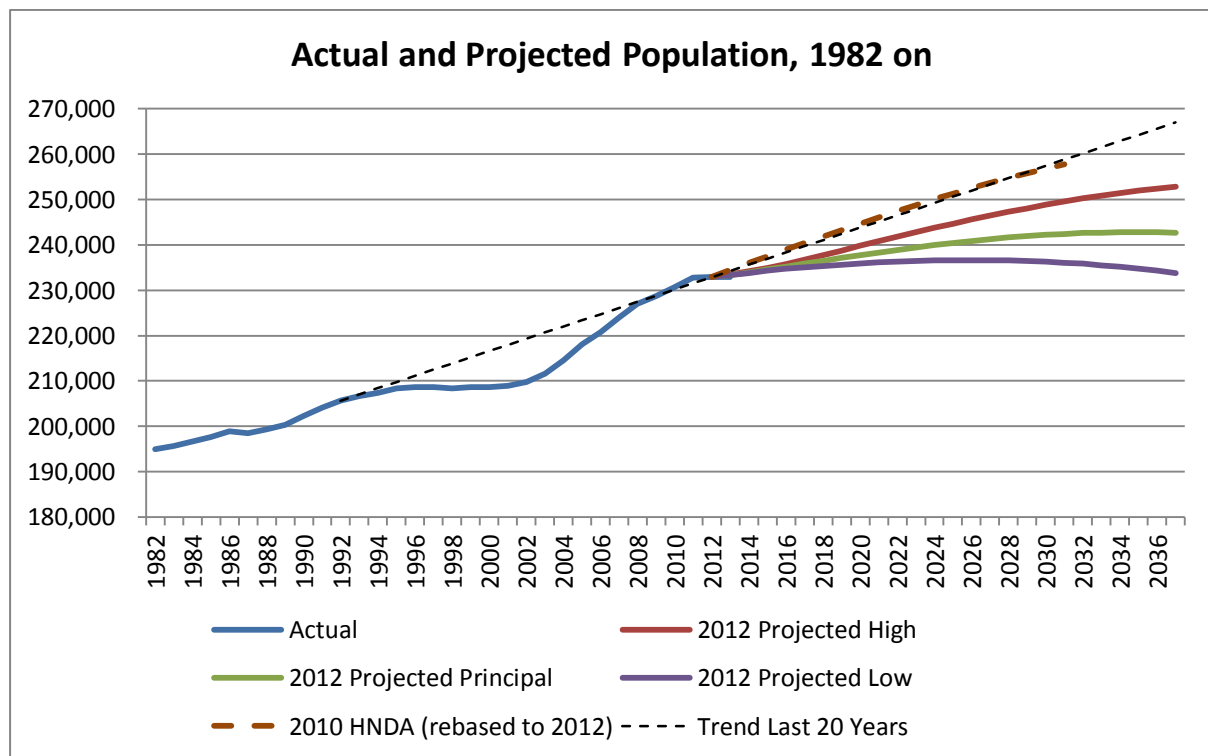
Household Projections – Overview

The number and type of households is determined using headship rates, which are based on the first person recorded on the Census form and the number and relationship of other people recorded on the form for that address. The 2011 Census has allowed NRS to update the current and projected future headship rates, and they have also changed their methodology to allow updates to be made in future years based on results from the Scottish Household Survey. Their methodology is therefore revised from previous years and this is combined with the impact of the credit crunch in which young people (in particular) are unable to afford to buy a house and are either living with parents or in private rented accommodation with increased occupancy rates. The net result is that the trends in household structure are continuing as expected but at lower rates, with slightly larger households in the future.

The new headship rates, in combination with lower population projections, mean that the 2012 projected annual increase in the number of households is lower than the historic rate of house building. This is shown in the chart below: note that in order to compare like with like the projected

number of households has been increased by 10% to account for ineffective stock, but even taking this into account all projected figures are lower than the 20 year historic average of 1,180.

2015 to 2020: The 2012 high migration scenario suggests a requirement for 4,390 new houses which compares with 5,890 from the long term trend. Initial results from the HNDA model suggest that around half of the requirement will need subsidised housing – around 2,200 or 440 per year for the 2012 high migration scenario.

2015 to 2035: The 2012 high migration scenario suggests a requirement for 15,190 new houses between 2015 and 2025 which compares with 23,560 from the long term trend.

New Houses Built and Projected New Houses , 1976 on
(new houses = new households *1.1 to adjust for ineffective stock)
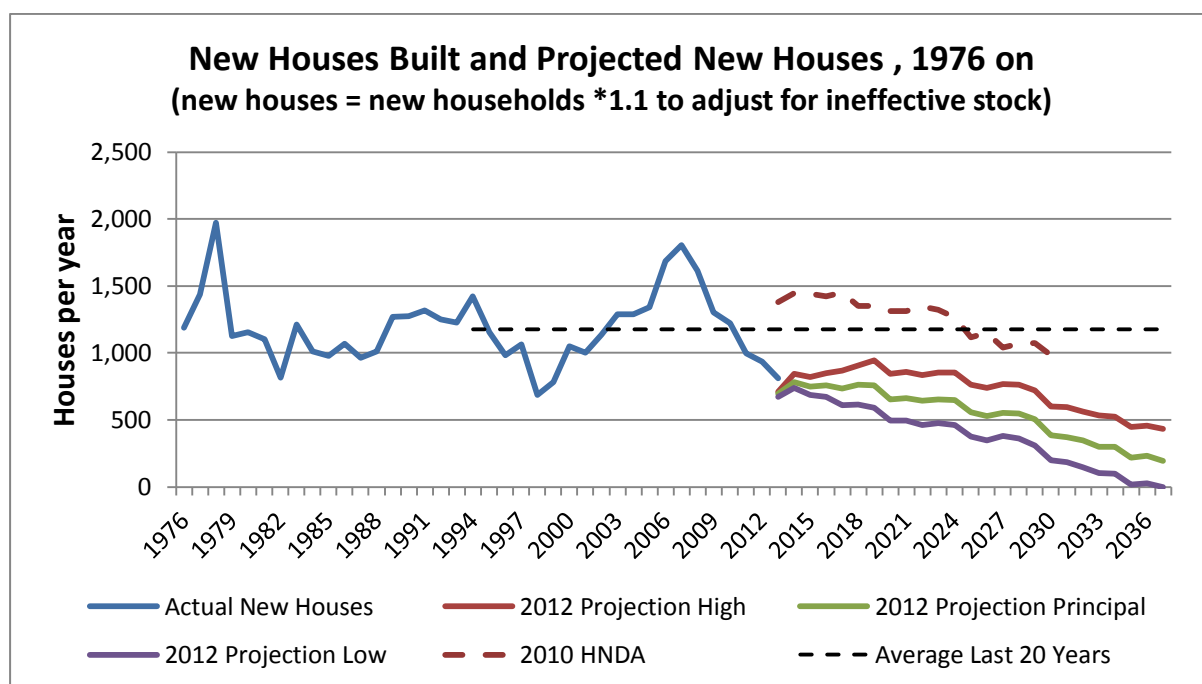
Summary and Implications

o   Population projections are lower than historic equivalents as a result of lower migration assumptions. There is a case that Highland has been adversely impacted by national assumptions, and migration in the principal projection is below the actual 20 year and 5 year averages
o   The 2011 Census has highlighted that, following the 2008 credit crunch, household sizes are not falling as quickly as expected and this in combination with a revised methodology gives a lower rate of growth in the number of households.
o   **For the LHS, 2015 to 2020**: The projected housing requirement using the 2012 high migration scenario is 4,390, lower than the long term trend of 5,890 (880 and 1,180 average per year respectively); the latter is similar to the scenario used in our 2010 HNDA.
o   **For the HNDA and HwLDP, 2015 to 2025**: The projected housing requirement using the 2012 high migration scenario is 15,190, lower than the long term trend of 23,560 (760 and 1,180 average per year respectively).

Our 2010 HNDA was based on the NRS high migration scenario and if we use a similar approach for our current HNDA it will lead to planning for a significantly lower level of growth than we have seen historically. In the medium to long term this would lead to a shortage of housing land and increasing

house prices, lower population growth, and poor economic performance – which is contrary to both Government and Council policy. Our current HNDA therefore needs to be based on higher growth scenario than given by the 2012 NRS high migration scenario.

Changes in Government Policy and Guidance

For the 2010 HNDA, there was a clear policy direction from Government starting with the 2007 Economic Strategy, through Firm Foundations and on to NPF2 and SPP3:- that we should be planning for higher levels of growth than we have seen historically.

The 2011 Economic Strategy re-states the commitment to population growth but is more general and is less specific about how it might be achieved. This less targeted approach is reflected in the June 2014 HNDA Guidance, National Planning Framework and Scottish Planning Policy which appear to signal a change in direction with removal of the requirement to plan for higher levels of household growth, and the presumption that a generous supply of land will be achieved through the addition of a 10% to 20% margin. There is no longer a specific requirement to plan for higher rates of growth than we have seen historically, consider future growth rates above central projections, or to consider high growth scenarios. The policy framework does not give any guidance on how we might go about choosing a sensible high growth scenario.

Options for the Scenario to be used in our 2010 HNDA

Options include one or more of the following. The first three assume that we continue with our approach of migration and population growth driving the housing requirement. Option 4 uncouples the housing requirement from population growth – on the basis that the population and household projections have been distorted by the impact of the credit crunch which limits their usefulness - and plans on the basis of the historic completion rate, perhaps adjusted.

1. **Use alternative headship rates**. At a simplistic level, around a third of the reduction in household growth is the result of changing household composition following the 2008 credit crunch, and there is a case that once the mortgage market readjusts and mortgages become more freely available, we will begin to see a return to previous rates of falling household sizes. Using an alternative set of headship rates is therefore an attractive option. Simply factoring the NRS set is an option and technically straightforward but might not be robust to challenge. A more rigorous approach is technically difficult and NRS report that they have (in August 2014) no plans to produce an alternative set. Although this is an attractive option it is probably not feasible at this moment in time.

2. **Add +230 per year to the net migration figure**. As discussed earlier, the underlying migration assumption for Highland is 230 per year lower than we might expect because of national assumptions about migration from overseas and between countries within the UK. We have a robust case that the economy of Highland is in good shape and that we will continue to attract inward migrants so this is an attractive option. It would increase the high migration figure from +1,100 per year to +1,330 per year but would only add around 130 per year to the housing requirement, which would remain below the long term average. This is probably not sufficient to make up the shortfall in its own right but could form a robust part of the justification for a higher rate.

3. **An alternative high migration rate**. Effectively, this would be a return to the previous guidance that we should plan on the basis of higher rates than we have seen historically and use professional judgement to decide on a figure, presumably between +1,330 per year (option 2) and +1,650 per year (2010 HNDA).

4. **Use the long term completion rate as the basis for the future housing requirement**. The average completion rate over the last 20 years is 1,180 per year and this could form the starting

point, adjusted up or down as necessary on the basis of professional judgement. Note that it would be possible to reverse engineer a set of population and household projections that would deliver this requirement, but this would inevitably result in a high migration rate.

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