

ARGYLL & BUTE COUNCIL

Housing Need & Demand Assessment Technical Supporting Paper 07

Core Output 2: HNDA Tool Methodology estimating requirements for new build housing

June 2021

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1.0 INTRODUCTION

1.1 This pap

formation, income and house prices. This does not equate to the future number or type of housing that will actually be delivered. That is determined in the HST as part of the policy decisions set out in the LHS.

1.6 In summary, the following process has been followed, informed by the evidence set out in preceding sections of the HNDA:

Step 1	Future demographic scenarios that best reflect what may occur in local HMAs.
Step 2	The number of households in existing need that will require a new home, and
	how many years it will take to clear this backlog.
Step 3	A select range of scenarios which best reflect what may happen to future local
	house prices and incomes.
Step 4	Affordability assumptions, to split total additional housing units by tenure.
Step 5	Considering how the Tool estimates will inform housing policy (LHS) and planning
	decisions (LDP) and a summary of key issues .

2.0 Step One: Future Demographic Scenarios

2.1 The basis of the future demographic projections is outlined in HNDA Technical Supporting Paper 02. A number of potential scenarios were considered for modelling within the HNDA Tool. There are 3 core scenarios which are based on actual recent trends of population decline and derive from official National Records of Scotland (NRS) projections, and can therefore be deemed "robust and credible". In addition, the council and its partners were strongly of the view that aspirational growth scenarios should also be used when making policy decisions about Housing Supply Targets. While these aspirational scenarios and outputs may not be appraised as "robust and credible" within the HNDA framework itself, nevertheless these are considered to be absolutely fundamental to the strategic vision and planning objectives for Argyll & Bute moving forward. This strategic imperative is fully endors047% //F6 ully eaf y3

2.5 It

2.10 In support of the proposed in-house stabilising and growth scenarios, the council has considered the following factors:

Confirmed:

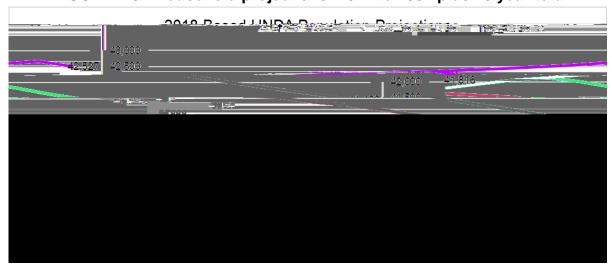
The MoD have implemented the Future Accommodation Model (FAM) for the increased service personnel relocated to the Naval Base

the so-called "staycation" phenomenon. As people welcome the easing of lockdown restrictions and embrace the renewed freedom to travel locally, it is highly likely that there will still be a degree of caution and constraint around wider, international travel; and consequently it is anticipated that the geographic and natural attractions of areas such as Argyll and Bute will generate substantial inward tourism. The hospitality, travel and holiday sectors are crucial for the local economy and once fully open again for business, the level of demand should support a healthy and thriving employment base which will underpin population growth and community sustainability. This will be supported with a range of policy incentives such as rural resettlement grants and financial aid for business.

2.11 ADDITIONAL LOCAL ADJUSTMENT TO NEWLY ARISING NEED

In 2021, the Scottish Government consulted on the fourth National Planning Framework (NPF4) with particular reference to Housing Land Supply Requirements which are derived from local authorities' HNDA estimates. In response to this, Argyll & Bute Council developed additional demographic adjustments to the calculation of Newly Arising Need further enhancing the assumptions set out in this paper. As noted above, the official demographic projections (i.e. NRS principle, low and high migration scenarios) all produce net household growth of zero over the next 15 years, and consequently a range of alternative household growth projections have been prepared. It has been assumed that the household population in Argyll & Bute will grow by 0.5% each year for (a) 5 years; (b) 10 years; and (c) 15 years. The latter growth scenario is the only version which sees a growth in household numbers between Year 1 and Year 15; with positive increases evident every year across the 15 year projection period

FIGURE 2.3: Household projections: 2022 to 2037 plus 15 year total



In summary, the variant changes in the official default (high migration i.e. least bad decline) and key growth scenarios over 15 years are highlighted in the following table.

TABLE 2.2: Argyll & Bute Household Projections, Changes 2022-2037.

Scenarios	2022	2037	15 Year Change
2018 High Migration	41,640	39,907	-1,733
2018 Growth 0.5% 5 years	41,816	40,206	-1,610
2018 Growth 0,5% 10 years	41,816	41,468	-348
2018 Growth 0.5% 15 years	41,816	42,527	710

The Scottish Government NPF4 calculation for Minimum All-Tenure Housing Land Requirement (MATHLR) tracks population change over a 15 year period, zeroing out any negative annual projections and totalling any remaining annual positive increases. This total figure is then divided by 15 to give an annual estimate and then multiplied by 10 to give a 10 year estimate.

As the 2018-based principle, low and high migration scenarios result in a consistent decline in household numbers across the 15 year projection period, net 10 year newly forming household estimates also total zero.

Household growth scenario (a) projects a 200 increase in the number of newly forming households in Argyll and Bute over a 10 year period (which is derived from positive growth in Years 1-5 only).

Household growth scenario (b) projects a 400 increase in the number of newly forming households in Argyll and Bute over a 10 year period (which is derived from positive growth in Years 1-10).

Household growth scenario (c) projects a 550 increase in the number of newly forming households in Argyll and Bute over a 10 year period (which is derived from positive growth in Years 1-15).

To validate the reasonableness of household increases associated with Scenario (c), this 10-year estimate is compared to the number of completions achieved in Argyll & Bute over the last 10 year period (2,025). On this basis, the estimate is extremely conservative accounting for just 27% of the housing output delivered over the last 10 years. The estimate is also benchmarked against Demographic Projections for the Scottish Sparsely Populated Area (SPA) 2011-2046 produced by the James Hutton Institute (2018). This analysis estimates that to hold the population in SPAs and avoid a decline in household numbers, an increase of roughly 800 households will be required between 2021 and 2030. Given the growth ambitions of the Council, this estimate aimed at holding the household population at **current** levels, is considered prudent and a more realistic proxy for a 10-year estimate of newly forming households.

3.6	Overcrowding is determined by the number of people who should live in a home in relation to the number of rooms, the size of the rooms and the ages, gender or relationship

1. Homeless households & those in temporary accommodation

a) Those in Temporary Accommodation

Snapshot of households in temporary accommodation	HL1 statistics: end of year 2019/2020	86
Temporary Accommodation Stock List	TA Stock list October2020	132
'Currently in temporary accommodation'	HNADA Survey: Q10 (All Other)	2
Figure used	TA Stock list October2020 Representative - covid impact/ occupied stock list (this was increasing over Covid period so a reasonable estimate)	132

b) Those with Insecure Tenure

Households who have become homeless as a result of insecure tenure	HL1 statistics end of year 2019/2020 : Reasons for homelessness: Insecure Tenure	142
Households with waiting list points: insecure tenure	No points on CHR April 2020 : unsuitable and insecure housing circumstances	328
Households who have moved in past 5 years as a result of insecure tenure	HNADA Survey: Q30E (H&L) Q33E (Others) options included 'evicted by landlord' and 'thrown out by relatives/friends', 'previous home temporary'	295
Household under notice of eviction/ repossession, real threat of notice or your lease is coming to an end	HNADA Survey: Q71B (other areas)	126
Figure Used: Average	An average across all four evidence base provides a reasonable and prudent estimate of need	223

4.	

1. Quality of home is a serious problem for the household 2. Dissatisfied with current homes because of poor condition 3. Estimate of BTS (SCHS) HNADA Survey Q 71e (other areas) HNADA Survey Q23 (other areas) Q26 (H&L) 130

3.10 The local Housing Market Partnership agreed that of these models, the in-

house calculation set out above

4.0 Step Three: Future market trends – house price and income scenarios

A lot of detailed data and analysis has informed HNDA Technical Supporting Papers 3a and 3b, which provide an overview and summary of the key economic drivers and house price and income trends that are influencing the local housing market. Further detailed analysis of affordability trends in the housing market and local rental markets is also available in HNDA Technical Supporting Papers 04 and 05. These factors will feed into the calculation for new build housing. Based on the analysis of the available data and drawing on the work of colleagues in economic development, it is proposed that the following inputs should form the basis of the economic/income component of the HNDA.

4.1 Income Growth and Distribution

In making decisions on local income data the council has considered the advantages of commercially available datasets produced by CACI Paycheck, which can be sourced at specific geographies and are current, and are also now available in a format suitable for inputting directly to the HNDA Tool; however on balance it was agreed to utilise the default data inputs produced on behalf of the Scottish Government by Heriot-Watt University and modelled from a number of national surveys, including the Scottish Household Survey, the Family Resource Survey, and the Census. Methodology and data estimates are available at the following link

https://www.gov.scot/publications/centre-for-housing-market-analysis-list-of-guidance/

4.2 The HNDA Tool is pre-programmed with five income scenarios that provide a range of income growth projections for average (median) household income. These are based on the economic outlook produced by Scottish Government Economists in 2020. At this stage it is too early to make robust and credible predictions about the full, long-term impacts of the Covid-19 pandemic, although the council has made provisional assessments based on available information in its economic supporting papers for the HNDA. In summary, the default Tool scenarios are:-

Table 4.1: Average (median) income growth scenarios

Income Scenarios	Annual rate of growth
High Real Terms Growth	3.5%
No Real Terms Growth	2.0%
Moderate Real Terms Growth (CoreDefault)	2.5%
Moderately Below Real Terms Growth	1.5%
Below Real Terms Growth	0.5%

"Median" scenarios deal with movements in average income - increases mean that average incomes rise. The default scenario is that incomes rise in line with inflation targets (2.5%). The following graph illustrates the variation in these growth scenarios, and the subsequent narrative explicates the individual scenarios in more detail.

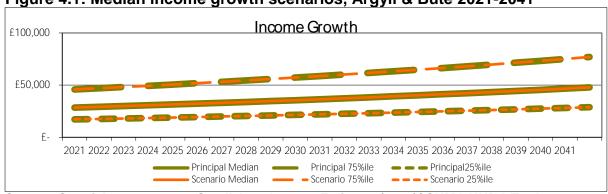


Figure 4.1: Median income growth scenarios, Argyll & Bute 2021-2041

Source: Scottish Government Small Area Income Estimate (2018)/ CHMA HNDA Tool, 2020

The CHMA HNDA guidance summarises each of these scenarios as follows.

a) Moderate Real Terms Growth (Tool Core/Default)

Household income growth is assumed to grow at 2.5% per annum in nominal terms. Assuming that inflation is at 2% per annum over the forecast horizon (Bank of England's inflation target) then in the long run this scenario assumes that there is real terms income growth of 0.5% per annum.

Over the past ten years, the average growth rate of (gross) earnings in Scotland has been 2.0% per annum (or -0.2% per annum in real terms). This is below the rate of real terms growth in earnings in the ten years prior to the 2008 financial crisis, when real household earnings in Scotland increased at an average annual rate of 1.8% per annum. The Scotlish Fiscal Commission's latest (pre-Covid) forecast predicted that real household earnings growth would pick up over the forecast period, increasing at 1.2% per annum from 2022 to 2024. However, it is likely that unemployment will rise (and subsequently put downward pressure on real wage growth) as a result of Covid-19 and Brexit. As such, the suggested core scenario is for a more moderate rate of real terms growth over the forecast horizon, of 0.5% per annum.

b) Below Real Terms Growth

Household income growth is assumed to grow at 0.5% per annum in nominal terms. Assuming that inflation is at 2% per annum over the forecast horizon (the Bank of England's inflation target), then in the long run this scenario assumes that there is an annual real terms fall in household income of 1.5% per annum.

c) Moderately Below Real Terms Growth

Household income growth is assumed to grow at 1.5% per annum in nominal terms. Assuming that inflation is at 2% per annum over the forecast horizon (the Bank of England's inflation target), then in the long run this scenario assumes that there is an annual real terms fall in household income of 0.5% per annum.

d) No Real Terms Growth

Household income growth is assumed to grow at 2% per annum in nominal terms. Assuming that inflation is at 2% per annum over the forecast horizon (the Bank of England's inflation target), then in the long run this scenario assumes that there is no real terms growth in household income.

e) High Real Terms Growth

Household income growth is assumed to grow at 3.5% per annum in nominal terms. Assuming that inflation is at 2% per annum over the forecast horizon (the Bank of England's inflation target), then in the long run this scenario assumes that there is real terms income growth of 1.5% per annum. This is similar to the level of growth seen in the ten years prior to the 2008 financial crisis.

It is the view of the council's HNDA Working Group that the default scenario of 2.5% income growth per annum over the planning period, i.e. Moderate Real Terms Growth, is a reasonably credible assumption, based on robust datasets and modelling, and reflects what might happen to incomes in the local authority area in future years. At this time the council has no compelling evidence to deviate from these default projections.

4.3 Income Distribution

The CHMA HNDA Tool is also pre-programmed with three income distribution scenarios that are designed to reflect, for a given growth rate in average (median) household income, different income distributions. The scenarios are defined in terms of how household income at the 10th and 90th percentiles grow relative to median household income (i.e. the 50th percentile), where the median household income growth rate has been selected as outlined above. The HNDA Tool will then automatically calculate growth rates at intermediate percentiles using a pro rata adjustment. These distribution scenarios include:

Greater equality

The incomes of the least affluent (represented by the 10th percentile of the income distribution) the income distribution of the income distribution of the income distribution). (represented by the 90th percentile of the income distribution).

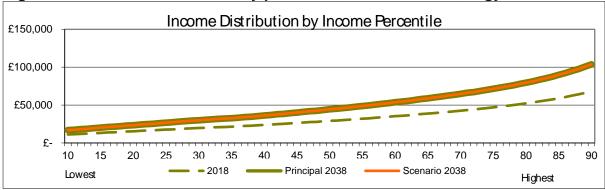
No change (Tool core/default)

The incomes of the least affluent (represented by the 10th percentile of the income distribution) and the most affluent (represented by the 90th percentile of the income distribution) increase at the same rate as median In summary, the distribution scenarios deal with the spread of income – basically, increases mean that the rich receive relatively more than the poor. The official, national scenarios are summarised in the following table and graph.

Table 4.2: Income distribution rates, Argyll & Bute,

Top 90 percentile Relative to Bottom 10 percentile	Annual Change
Greater Equality	-1.0%
No Change (Core Default)	0.0%
Greater Inequality	1.0%

Figure 4.2: Income distribution by percentile, 2018 and 2038, Argyll & Bute



Source: CHMA HNDA Tool, default scenarios, 2020

At a national level, there has been a slight upward trend in the ratio of the 90th percentile to 10th percentile equivalised income (after housing costs) over the last decade (the highest incomes were growing faster than the lower incomes); however over a longer time span there is less of a discernible trend. As such, the default setting in the Tool is for no change in income inequality, and as there is no clear evidence available to support any particular scenario over another in Argyll and Bute, the council proposes that the HNDA calculation for this authority area is run using the default scenarios for income distribution to provide a potential range of outcomes which will influence the affordability component of the HNDA calculation.

4.4 Affordability and House Price trends

The HNDA Tool is pre-programmed with 5 house price scenarios:

I. Trend Growth (Core/Default)

House price growth is equivalent to the annualised growth rate of the average Scottish house price (UK HPI) over the last ten years, which is 1.6% per annum. In the lead up to the 2008 financial crisis, the growth rate of the average Scottish house price was persistently high (around 15% year on year growth in the three years prior to the 2008 financial crisis, according to the UK HPI). However, in the aftermath of the 2008 financial crisis, a combination of reduced mortgage availability and increased unemployment put downward pressure on the average

Scottish house price. Over the past ten years though, volatility in Scottish house price growth has moderated, with a fairly stable average growth rate of around 1.6% per annum. The latest Scottish Fiscal Commission forecast of house prices (published in February 2020, pre-Covid-19) predicts that the year-on-year change in the Scottish house price will be 1.9% from 2021-22 until the end of the forecast period (2024-25). The HNDA core/default setting is slightly lower; however, owing to the adverse economic effect of Covid-19 that has transpired since this forecast was produced. This is a reasonable, long-term assumption. If it is assumed that CPI is 2% per annum over the HNDA projection period (the Bank of England's inflation target), then this scenario assumes that house prices will gradually fall in real terms, by 0.4% per annum.

II. Moderately High

House price growth is equivalent to the average annualised growth rate in house prices of the 16 local authorities with the highest rates of annualised house price growth over the last 10 years, which is 2.3%

Table 4.4: Annual House Price Scenarios, Argyll and Bute

Scenarios	Annual Change
High Growth	2.9%
Moderately High Growth	2.3%
Trend Growth (Core Default)	1.6%
Moderately Low Growth	0.7%
Low Growth	0.3%

Figure 4.3: House Price Projections, Argyll and Bute, 2021-2041

Source: CHMA HNDA Tool, 2020

As well as determining market house price trends, the HNDA Tool requires the local authority to decide how rental prices are likely to change over the course of the projection period e.g. 2021-2031 and beyond. As with the house price assumptions, the Tool is pre-programmed with five future rental price

with potential to drive up house prices at an increased rate, particularly in previously stagnant or suppressed housing market areas, however this will require regular, longer term monitoring and analysis; and therefore the current assumption is to accept the default scenario in the HNDA Tool for both house price and rental projections.

4.7 Step 4: Affordability assumptions – tenure split

In this stage the overall estimates of additional housing required are split into households who are able to afford each of the four prescribed tenures. In this instance the default process as pre-programmed into the CHMA's HNDA Tool has been adopted.

4.7.1 Home Ownership

For each year, within the tool, the additional housing need is divided into those who could and could not purchase in the open market by using an assumption over the relationship between house prices and income i.e. an income-price affordability constraint. The default setting in the Tool assumes that a household is suitable for home ownership provided that they could afford to purchase a house at the lower quartile (25th percentile) of the house price distribution (as outlined above).

The current test for affordability is that the house price is no more than 3.9 times the household's income. To calculate this, the mean loan-to-value ratio for a first-time-buyer mortgage in Scotland in 2019/20 (82%) and mean loan-to-income ratio (3.2) were obtained from UK Finance. To get the house price to income ratio, 3.2 is divided by 82%.

The default (core) assumption is the 25

considered opinion of the HNDA Working Group that the CHMA's default

If a household spends between 25% - 35% of their income on rent the Tool assumes they are suitable for below market rent.

If a household spends more than 35% of their income (including housing benefit) on rent the Tool assumes they are suitable for social rent.

From the extensive primary research into the Private Rented Sector (see HNDA Technical Supporting Paper 05) and the cross-tenure affordability analysis carried out in HNDA Technical Supporting Paper 04, the council is of the view that the default scenarios and assumptions set out above and included in the HNDA Tool are robust and credible reflections of the local context in Argyll and Bute. While there are certain constraints regarding delivery of intermediate tenures, or "below market rent" at some localised HMA levels within this authority area, there is also evidence that these products and options would benefit a proportion of the local residents and positively help to address some of the unmet need. Therefore, the council and its partners accept the general principles of setting these affordability thresholds to determine potential tenure split in the new build housing estimates (albeit further market testing and analysis at sub-HMA level would be required when specifying BMR/Shared Equity needs and targets for individual settlements or community areas).

5.0 Step 5: Tool Outputs – HNDA Results

5.1 Running the various inputs through the HNDA Tool for each selected scenario provides a range of outputs/projections of the total requirement for additional housing over the next 5 and 10 years. In all default scenarios (using official NRS demographic projections – principle, low and high migration - and the CHMA estimate of backlog/existing need) the tool projected negative or minimal outputs across Argyll and Bute indicating a potential over-supply, arising mainly from the substantial level of population decline and the consequent release of available existing stock within the housing system. Following

5.3 Council Adjusted Tool Scenarios

b) Scenario 2 (Default household projection & Council Backlog Need)

In this scenario, most of the default settings are retained and the principle 2018-based population projection is used; however the estimate of backlog need is replaced with the council's in-house calculation. This results in an overall requirement for around **760 additional units** across the whole of Argyll and Bute over the first five year period and nil requirement over the subsequent five year periods. As this need is determined wholly by existing/backlog need (newly arising need remains at zero due to the continuing demographic decline), it would all be assigned again to social rent, and as with all default scenarios there would be no requirement for private units for rental or purchase. Once the backlog of need has been cleared over the first five years, the declining demographic would result in no further need in later years.

Scenario 2: Principle Household Projection & in-house backlog need calculation, Argyll & Bute								
	Tenure 2021 - 2025 2026 - 2030 2031 - 2035 2036 - 2040							
Constrained	Social rent	760	0	0	0			
Constrained Tenure Results	Below Market	0	0	0	0			
	PRS	0	0	0	0			
Results	Buyers	0	0	0	0			

Under this scenario, all 9 HMAs would exhibit some requirement for new build housing, with almost one third of the need in Lorn (245 units), around 21% in Helensburgh & Lomond (160 units), and 16% in Cowal (120 units).

Scenario 2: Principle Household Projection & in-house									
backlog need calculation, HMAs (all tenures)									
Years Bute Coll & Cowal H&L I J C Kintyre Lorn Mid Argyll Iona									
		Tiree						Argyll	Iona

This scenario is based on the as

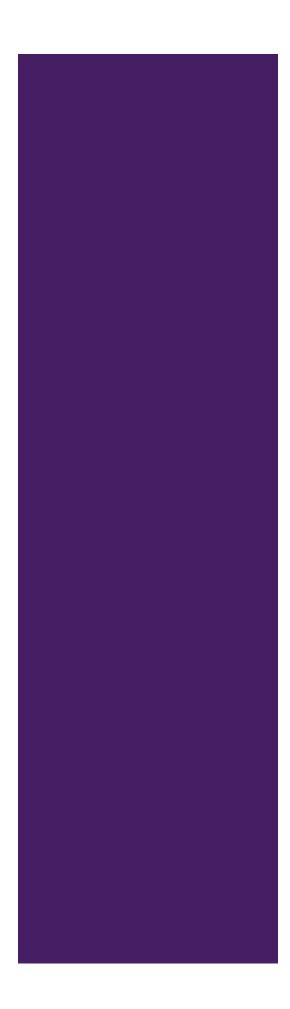
The council has used the HNDA Tool to run a number of alternative scenarios with variant inputs, including a more refined and localised demographic projection for individual HMAs, incorporating greater rates of growth in particular "hotspot" areas and more stabilised demographics in areas where opportunities for economic and demographic development may appear more constrained or limited in the short term. On reflection, however, the key outputs outlined in this section, in particular scenario 4, are considered to be the most relevant and appropriate to inform both the HNDA and the Housing Supply Targets for the LHS and SHIP.

6. Conclusions and Key issues

HOUSING REQUIREMENT: ESTIMATING HOUSING NEED AND DEMAND -Key Issues Table

LHS & Development Plan	Key Issues Identified in the HNDA

30% land supply allowance is factored into the calculation, the overall estimate is for 1,865 units over 5 years; 2,100 over 10 years; and 2,477 over 15 years. 5. In terms of tenure split for the new build owner-occupation private rent



APPENDIX ONE: Summary of Argyll & Bute Council's response to the Scottish Government's consultation on NPF4: Minimum All-Tenure Housing Land Requirement

i. Creating a robust and credible locally adjusted estimate of need

The Scottish Government is preparing the Fourth National Planning

iii. Local Estimates: Existing Need

In Argyll and Bute local estimates of existing need have been used to replace the default estimate and are considered a more credible measure

iv. Local Estimates: Newly Forming Households

{see section 2.11, pages 8-9 of this report for details.}

v. MATHLR - Locally Adjusted Estimates

1) HNDA Principle & High Migration Scenarios

Using local estimates for newly forming households and existing need under principle or high migration scenarios, results in a 10-year MATHLR of **1,100**.



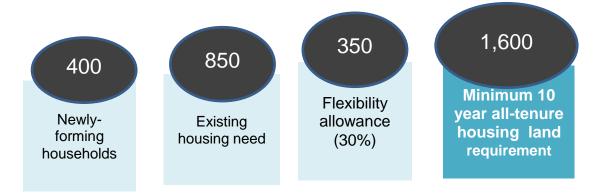
2) Growth Scenario 1 (5 Years)

Using local estimates for newly forming households and existing household need under a 5-year household growth scenario, results in a 10-year MATHLR of **1,350**.

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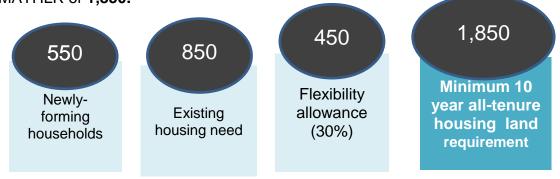
3) Growth Scenario 2 (10 Years)

Using local estimates for newly forming households and existing household need under a 10-year household growth scenario, results in a 10-year MATHLR of **1,600**.



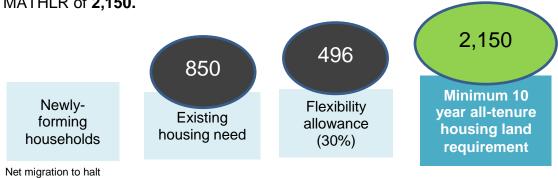
4) Growth Scenario 3 (15 Years)

Using local estimates for newly forming households and existing household need under a 15-year household growth scenario, results in a 10-year MATHLR of **1,850**.



5) Growth Scenario 4 (15 Years)

Using local estimates for newly forming households and existing household need under SPA household population retention scenario, results in a 10-year MATHLR of **2,150**.



population loss to SPAs 2021- 20230

39

Statistical Data & Triangulation: Locally Adjusted MATHLR Estimates

vi.

If Argyll & Bute is to deliver pipeline units in full as grant funded by the Scottish Government within the SHIP, then up to

national policy drivers and strategic aspirations which are clearly set out in this paper, and which have been fully accepted by partners and stakeholders across Argyll & Bute.

In particular, there is clear co-operation and co-ordination between the council's Housing and Planning functions on this matter, with both services fully integrate ich ha TmBT1 0 0(a,j5(y)10(p)-505600030058BT1 dcce)-3(pp.25 701.14E