Appendix IV
Assessment of Reasonable Alternatives for Growth

1.1   This appendix sets out an appraisal of the reasonable alternatives for Growth within the Joint Local Plan.

1.2   Each relevant option will be assessed against the IA criteria in the following format. The Integrated Assessment Framework is below. For more information about the process please look at the main report.

Policy	Integrated Assessment Criteria																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1																	
2																	
Commentary
An overall description of the sustainability of each option, which will include consideration of any significant short , medium, long term, permanent, temporary, secondary, cumulative, synergistic positive or negative effect and any appropriate measures to improve the overall positive effects of the proposal.

The matrix will record the findings of the assessment by using the following:

Score	Significance
++	Major positive effects to achievement of the IA objective
+	Minor positive effects to achievement of the IA objective
0	No effect (either positive or negative) to achievement of the IA objective
-	Minor negative effect to achievement of the IA objective
--	Major negative effect to achievement of the IA objective
?	Impact on the IA objective is uncertain

1.3   In order to test the reasonable alternatives for growth and the different impacts they would have on the JLP area it is helpful to summarise some of the evidence of the within the SHMA Part 1.

1.4   Tables 1 – 6 in this appendix set out the different figures within each projection. For further information and more detail please refer to the main document

1.5   The SHMA developed 2 scenarios for calculating the HMA OAN for housing and for employment growth these are:
- Scenario 1 – Using official 'Baseline' 2014 based household projections adjusted for vacancy and uplifted for market signals
- Scenario 2 – Using updated 'Local DCC 10-year migration trend' and uplifted for market signals

1.6   Also, the Regulation 18 consultation documents set out an indicative figure for housing provision of 30300, however this figure was consulted upon ahead of the more detailed work on the housing numbers and the consultation document was clear that further testing and refinement was required. This indicative figure has been tested alongside the more robust demographic and locally adjusted target figures set out below. At this stage in the consultation there was no figure for jobs/employment land, so scenario 3 relates only to housing
- Scenario 3 – Regulation 18 Indicative Figure

Table 1 – Population Projections

	Baseline			Local 10-year migration		
	Popn 2014	Popn 2034	Total Growth	Popn 2014	Popn 2034	Total Growth
Plymouth	261500	282700	21200	261500	295300	33700
South Hams	84100	90600	6500	84100	87300	3200
West Devon	54300	61600	7300	54300	60200	5900
HMA	399900	434900	35000	399900	442700	42800

Table 2 - Household Projections

	Baseline			Local 10-year migration	
	Households 2014	Households 2034	Total Growth	Households 2014	Total Growth
Plymouth	112000	123600	11600	112000	16600
South Hams	37700	42100	4400	37700	3100
West Devon	23400	27800	4400	23400	4300
HMA	173100	193500	20400	173100	24000

Table 3 – Jobs Projections

	Baseline			Local 10-year migration		
	Jobs 2014	Jobs 2034	Total Growth	Jobs 2014	Jobs 2034	Total Growth
Plymouth	128600	143400	14800	128600	144400	15800
South Hams	46500	48900	2400	46500	48700	2200
West Devon	22000	24500	2500	22000	24400	2400
HMA	197100	216800	19700	197100	217500	20400

1.7   After applying the adjustment for the market signal uplift the two scenarios provide the following OAN

Table 4 DCLG 2014 based OAN 2014-2034

	Baseline 2014-2034	Adjust for vacancy rates	Cumulative total	Market signals uplift	OAN (dwellings) 2014-2034
Plymouth	11659	3.3%	12044	10%	13248
South Hams	4386	14.8%	5035	25%	6294
West Devon	4419	7.9%	4768	20%	5722
HMA	20464		21847		25264

Table 5 – 10-year migration trend – OAN 2014-2034

	10-year migration trend 2014-2016	Market Signals Uplift	OAN (dwellings) 2014-2034
Plymouth	16561	10%	18217
South Hams	3139	25%	3924
West Devon	4302	20%	5162
HMA	24002		27303

1.8 Also prior to the publication of the pre-submission version of the Joint Local Plan a level of growth of 30,300 was published in the Regulation 18 Summer and November Consultation documents. This was set out in the following table

At Plymouth the city and the urban fringe	21000 new homes
Thriving Towns and Villages not including Dartmoor	8700 new homes
Dartmoor Provisional Figure	600 new homes
Total	30300 new homes

1.9 As set out above the Regulation 18 consultation documents set out an indicative figure for housing provision of 30300, however this figure was consulted upon ahead of the more detailed work on the housing numbers and the consultation document was clear that further testing and refinement was required. This indicative figure has been tested alongside the more robust demographic and locally adjusted target figures set out below. At this stage in the consultation there was no figure for jobs/employment land, so scenario 3 relates only to housing.

1.10 It is quite difficult to test the real differences between the different scenarios as the real test of sustainability will be in how the growth is distributed through the spatial strategy. Therefore, at this stage it is only possible to conclude that each of the scenarios will provide for housing and economic growth to meet identified need but will have a range of impacts on the remaining sustainability criteria depending on the distribution strategy. The tables below therefore contain numerous '?' in the scoring sheet. This assessment has concluded in a list of issues which need to be carefully considered when taking the levels of growth forward into the plan through the spatial strategy.

Options	Assessment Criteria																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Scenario 1 DCLG 2014 Base Homes 25264 Jobs 19700	+	?	+?	+	?	+?	?	?	?	?	?	?	?	?+	?	?	?
Scenario 2 10 Year Migration Homes 27303 Jobs 20400	+	?	+	+	?	+	?	?	?	?	?	?	?	?	?	?	?
Scenario 3 – Regulation 18 consultation Homes 30300 Jobs?	+	?	+?	+	?	?	?	?	?	?	?	?	?	?	?	?	?

Commentary

All of the growth alternatives will have impacts on the sustainability characteristics identified in the SA Framework. The scenarios result in a range of residential development from (1) 25,264 – (2) 27303 – (3) 30300. The table below sets out some of the key issues which should be considered when choosing the preferred option for levels of growth within the plan period.

SA Objective	Commentary
SA1 Community Vitality	All three scenarios will have impacts on community vitality and provide opportunities to increase resilience and reduce future inequalities. The provision of housing, jobs and facilities and services to serve the communities within the JLP area will help support communities within the plan area. It is important that the level of growth for the plan area is well balanced so that it helps meet the need of the local area rather than encouraging in migration or outmigration
SA2 Health and Well being	All three scenarios will have impacts on the population in terms of health and wellbeing. The extent of this benefit will depend on how the development is distributed. There are opportunities to improve inner city areas and also to help the future sustainability of the thriving towns and villages. It will be important to ensure that the strategy enables healthy

		communities and reduce the fear of crime
SA3 Housing		All three scenarios will provide opportunities to deliver a suitable mix of housing. The strategy and policies in the plan will help determine the extent to which the JLP improves the mix and quality of the housing stock. It is important that the plan meets the needs of all sectors of the community including the elderly, disadvantaged, gypsies and travellers
SA4 Access to services		It is important to the success of the JLP that new development is located so that it can access essential services and facilities. it is important that the strategy in the plan provides opportunities for people to live close to key services so that the need to travel is reduced
SA5 Education and skills		It is important that the JLP ensures that the needs of the community for education etc are provided for alongside the housing development
SA6 Employment and jobs		It is critical to the success of the strategy within the JLP that the needs of the economy and the right level of jobs are provided to support the growth in household and the population. The higher the level of growth goes the more difficult it is to ensure that the strategy is balanced. If homes are provided without the right levels of jobs and employment space than the strategy could lead to an increase in unemployment. This is more likely in the higher level growth scenarios and therefore the ability to balance homes with jobs is an important factor when considering future levels of growth. The evidence shows that there is a need for certain level of jobs within the JLP, this level of need is based on the population change, if too many homes are built this could mean that unemployment will rise and therefore ensuring that the level of housing growth and employment provision are balanced to ensure that it helps reduce both unemployment and the need for increased commuting from outside of the plan area.
SA7 Low carbon economy		It is important that alongside any plan for growth that careful consideration is taken of the impacts of new development on energy demand and that where possible steps are taken to reduce the use of energy. This can be through the design of buildings and also through the use of renewable energy in site design, for example solar panels or the use of ground source heat pumps where appropriate. The JLP should include policies which encourage the use of renewable energy where appropriate. Increasing population will increase the use of resources and therefore it is important to look for opportunities to minimise this pressure on resources
SA8 Travel and transport		It is important to the sustainability of the JLP that the impacts of increased population on travel and transport are assessed and that appropriate mitigation is put in place. In the first instance development proposals should be located where they can access other modes such as walking, cycling and public transport. The higher the level of growth the more need there will be to mitigate for its impact. The distribution strategy should explore reasonable alternatives which places development in locations which reduces the need to travel first, focusing on the city and then the main towns, smaller towns and villages within the TTV area. The plan should also ensure that the relevant local transport plans include any major schemes required and that where possible proposals to develop other modes of transport such as rail or better public transport should be facilitated through development proposals.

SA9 Biodiversity	Development could have an impact on biological and geological diversity. The impacts of the plan on designated sites will be tested through the Habitats Regulations Assessment and the plan will contain policies which seek to both protect and enhance biodiversity and geodiversity. The plan can include policies for green infrastructure which will help ensure that species can move between development particularly through the city and in the TTV the plan will encourage development to existing built up areas rather than the open countryside. There will be policies in place to ensure that development does not impact on protected species of flora and fauna the site selection process will help screen any specific impacts pf development proposals and ensure that these are factored into the JLP.
SA10 Landscape	Development could have an impact on the special qualities and character of designated landscapes such as the Dartmoor National Park, the Areas of Outstanding Natural Beauty and the undeveloped coasts. It is important that the plan carefully considers the impact which growth can have on these areas and seek to place development in areas which do the least harm. Large areas of the TTV part of the plan are within or adjacent to the AONB and this will be an important factor when considering levels of growth for these areas. The towns and villages within the AONBs play an important role in the function of the local area and it is important that they are carefully considered for some levels of growth. The options looking at the possible distribution of development will help to determine the scale of any provision within the AONBs. The site selection process will help screen any specific impacts pf development proposals and ensure that these are factored into the JLP.
SA11 Historic Environment	Development could have an impact on the cultural and historic environment. This will depend on where development is located and what historical assets are in place. The JLP should carefully consider the impact of any proposals for development on the historic environment. The site selection process will help screen sites for historical assets. Where historical assets are identified on sites then it will be important that an appropriate assessment of any impacts on the historic assets is undertaken to ensure that the assets are protected or enhanced. The site selection process will help screen any specific impacts pf development proposals and ensure that these are factored into the JLP
SA12 Design	Development will have impacts on the character of the local area. The JLP will need to include policies which enhance the quality and character of places and promote good design. The JLP should identify ways of improving the visual amenity through good design and ensuring that development does not detract from the local area.
SA13 Flood Risk	The JLP will need to ensure that development avoids areas of high flood risk and that development proposals do not exacerbate any problems in relation to flooding. The site selection process will help screen any specific impacts pf development proposals and ensure that these are factored into the JLP. The JLP have also prepared a flood risk document which undertakes the sequential and exceptions tests of sites proposed through the site selection process and considered to be reasonable alternatives
SA14 Resource use	Development does require the use of resources including land and also The JLP should make the most efficient use of land and prioritise the use of previously developed land where appropriate, minimise the use of good quality agricultural land and where possible ensure that important resources and conserved and their use is limited.
SA15 Waste	The JLP should where possible reduce the use of primary resources and promote the use of recycled materials where possible. All of the development scenarios will lead to increased waste and it is important that the JLP has regard to the

production	respective waste plans in operation within the plan area to ensure that the development proposals do not have any negative impacts.
SA16 Air Quality	Development proposals could have impacts in terms of air quality and it will be important that development proposals take and Air Quality Management Areas into account when planning for development and ensure that the spatial strategy and specific proposals do not exacerbate any existing problems or create new one
SA17 Equality and Diversity	Development proposals will have impacts on all people within the community. It is important to ensure that the JLP does not discriminate against any 'protected characteristics' as defined in the Equality Act

As the assessment shows all three of the levels of growth tested will have implications on the sustainability characteristics of the JLP area. The scenarios set out above for the level of growth required within the JLP area are fairly closely related in terms of the range of dwellings required 25,264 – 27303 – 30300 and in terms of jobs 19700 and 20400. This means that identifying the differences between each of the scenarios is quite difficult, for example the lowest level of growth could have less impact on the environment than the highest level of growth, but the lower levels of growth may not meet the needs of the local communities in terms of housing needs. The real impact of the levels of growth will depend on the distribution of the development. It is recognised that all development will have some impacts, both negative and positive, on services, facilities, health, travel and transport as well as the local and strategic environment, this needs to be subject to further testing through a closer look at the reasonable alternatives for the distribution of development, (see the November consultation document and appendix VI).

From this assessment, it is not felt that the level of growth proposed in the scenarios will have significant effect, the figures proposed will be aimed at meeting the identified need within the HMA. Not providing for this growth or significantly over providing is considered to have more chance of having negative effects on the criteria set out in this framework. Therefore, it is considered that the only real 'reasonable alternative 'is somewhere within the range of scenario 1 and scenario 2. Scenario 3 is not based on the up to date evidence and this means it is not as robust, also the slightly higher level of growth could have negative impacts in terms of jobs and employment.

The Council could opt for scenario 1 and meet the need as set out in the DCLG figures however this figure is not seen to be sufficiently reflective of the local area. The use of a short-term migration period means that it doesn't totally reflect the longer term view nor does it show a period of boom and recession. It is recognised that the chosen levels of growth must be able to balance both the housing and employment strategies and provide the greatest chance to improve self-containment and reduce the amount of unemployment and out migration for work.

In conclusion scenario 2 provides the most robust basis on which to develop the housing and economic targets. The detail around this decision and how this translates into housing and jobs targets are set out in further evidence to support the JLP.